

भारत का राजपत्र The Gazette of India

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY



सं० 14] नई दिल्ली, शनिवार, अप्रैल 7, 2001 (चैत्र 17, 1923)
No. 14] NEW DELHI, SATURDAY, APRIL 7, 2001 (CHAITRA 17, 1923)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

THE PATENT OFFICE

PATENTS AND DESIGNS

Calcutta, the 7th April 2001

ADDRESS AND JURISDICTION OF THE OFFICES OF THE PATENT OFFICE

The Patent Office has its Head Office at Calcutta and Branch Offices at Mumbai, Delhi and Chennai having Territorial Jurisdiction on a Zonal basis as shown below :—

Patent Office Branch,
Todi Estates, IIIrd Floor,
Lower Parel (West), Mumbai-400 013.

The States of Gujarat,
Maharashtra, Madhya Pradesh and
Goa and the Union
Territories of Daman and
Diu and Dadra and Nagar Haveli.

Telegraphic address "PATOFFICE"

Phone No. 482 5092
Fax No. 022 495 0622

Patent Office Branch,
Unit No. 401 to 405, IIIrd Floor,
Municipal Market Building,
Saraswati Marg, Karol Bagh,
New Delhi-110 005.

The States of Haryana,
Himachal Pradesh, Jammu and
Kashmir, Punjab, Rajasthan,
Uttar Pradesh and Delhi and
the Union Territory of
Chandigarh.

Telegraphic address "PATENTOFIC"

Phone No. 578 2532
Fax No. 011 576 6204

1-7 GI/2001

Patent Office Branch.

Wing 'C' (C-4, A),
IIIrd Floor, Rajaji Bhavan, Besant Nagar,
Chennai-600 090.

The States of Andhra Pradesh,
Karnataka, Kerala, Tamilnadu and
Pondicherry and the Union
Territories of Laccadive, Minicoy
and Amindivi Islands.

Telegraphic address "PATENTOFIC"

Phone No. 490 1495
Fax No. 044 490 1492.

Patent Office (Head Office),
"NIZAM PALACE", 2nd M.S.O.
Building, 5th, 6th and 7th
Floors, 234/4, Acharya Jagadish
Bose Road, Calcutta-700 070

Rest of India.

Telegraphic address "PATENTS"

Phone No. 247 4401
Fax No. 033 247 3851

All application, notices, statements or other documents or any fees required by the Patents Act, 1970 and the Patents (Amendment) Act, 1999 or the Patents Rules, 1972 as amended by The Patents (Amendment) Rules, 1999 will be received only at the appropriate offices of the Patent Office.

Fees :—The fees may either be paid in cash or may be sent by Bank Draft or Cheques payable to the Controller of Patents drawn on a scheduled Bank at the place where the appropriate office is situated.

पेटेंट कार्यालय**एकत्र तथा अभिलेख**

कलकत्ता, दिनांक 7 अप्रैल 2001

पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ते में अवस्थित है तथा मुंबई, दिल्ली एवं चेन्नई में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार ज्ञान के आधार पर निम्न रूप में वर्णित हैं :—

पेटेंट कार्यालय शाखा, टोडी इस्टेट,
तीसरा तल, लेजर परबल (प.)
मुम्बई-400013।

गुजरात, महाराष्ट्र, मध्य प्रदेश
तथा गोआ राज्य क्षेत्र एवं मध्य
शासित क्षेत्र, दमन तथा दीव एवं
दादर और नगर हवेली।

तार पता - "पेटेंटिफिक"

फोन : 482 5092 फैक्स : 022 495 0622

पेटेंट कार्यालय शाखा,
एक सं. 401 से 405, तीसरा तल,
नगरपालिका बाजार भवन,
मरुस्वती मार्ग, करोल बाग,
नई दिल्ली-110 005।

हरियाणा, हिमाचल प्रदेश, जम्मू
तथा कश्मीर, पंजाब, राजस्थान,
उत्तर प्रदेश तथा दिल्ली राज्य
अर्थात् एवं मध्य शासित क्षेत्र सम्मिलित।

तार पता - "पेटेंटिफिक"

फोन : 578 2532 फैक्स : 011 578 6204

पेटेंट कार्यालय शाखा,
विंग "सी" (सी-4, ए),
तीसरा तल, राजाजी भवन,
बसन्त नगर, चेन्नई-600090।

आन्ध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु,
तथा वाणिज्यचरी राज्य क्षेत्र एवं
मध्य शासित क्षेत्र, लक्षद्वीप, मिनिक्काय
तथा एमिनिक्किव द्वीप।

तार पता - "पेटेंटिफिक"

फोन : 490 1495 फैक्स : 044 490 1492

पेटेंट कार्यालय (प्रधान कार्यालय),
निजाम पैलेस, द्वितीय बहुतलीय कार्यालय
भवन, 5, 6 तथा 7वां तल,
234/4, आचार्य जगदीश बोस मार्ग,
कलकत्ता-700 020।

भारत का अवशेष क्षेत्र।

तार पता - "पेटेंट्स"

फोन : 247 4401 फैक्स : 033 247 3851

पेटेंट अधिनियम, 1970 तथा पेटेंट (संशोधन) अधिनियम, 1999 अथवा पेटेंट (संशोधन) नियम, 1972 द्वारा उपेक्षित सभी आवेदन, सूचनाएं, विवरण या अन्य दस्तावेज या कोई भी पेटेंट कार्यालय के केवल सम्बन्धित कार्यालय में ही प्रेषण किये जायेंगे।

शुल्क : शुल्कों की अदायगी या तो नकद की जाएगी अथवा जहाँ उपयुक्त कार्यालय अवस्थित है, उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा चेक द्वारा की जा सकती है।

COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of a patent on any of the applications concerned, may, at any time within four months from the date of this issue or within such further period not exceeding one month if applied for on Form 4 prescribed under the Patent (Amendment) Rules, 1999 before the expiry of the said period of four months, give notice to the Controller of Patents at the appropriate office on the prescribed Form 7 of such opposition. The written statement of opposition should be filed in duplicate alongwith evidence, if any, with said notice or within sixty days of its date as prescribed in Rule 36 as amended by the Patents (Amendment) Rules, 1999.

The Classification given below in respect of each specification are according to Indian Classification and International Classification Systems

Printed copies of the specification and drawings, if any, can be supplied by the Patent Office or its branch offices on payment of prescribed charge of Rs. 30/- each.

In the event of non-availability of printed specification, photocopies of the specification and drawings, if any, can be supplied by the Patent Office and its branch offices on payment of prescribed photocopy charges @ Rs. 10/- per page of such document plus Rs. 30/-.

स्वीकृत सम्पूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि संबंधित आवेदनों में से किसी पर पेटेंट अनुदान के विरोध करने के इच्छुक व्यक्ति, इसके निर्गम की तिथि से चार (4) महीने या अधिक ऐसी अवधि जो उक्त चार (4) महीने की अवधि की समाप्ति के पूर्व, पेटेंट (संशोधन) नियम, 1999 के तहत विहित प्रारूप 4 पर अवर बाधित हो, एक महीने की अवधि से अधिक न हो, के भीतर कभी भी निर्धारक एकत्र को उपयुक्त कार्यालय में ऐसे विरोध की सूचना विहित प्रारूप 7 पर दे सकते हैं। विरोध संबंधी लिखित वस्तुस्थिति प्रतियों में साक्ष्य के साथ, यदि कोई हो, उक्त सूचना के साथ या पेटेंट (संशोधन) नियम, 1999 द्वारा संशोधित नियम 36

के तहत यथाविहित उक्त सूचना के तिथि से 60 दिन के भीतर फाइल कर दिये जाने चाहिए ।

प्रत्येक विनिर्देश के संदर्भ में नीचे दिये वर्गीकरण, भारतीय वर्गीकरण तथा अन्तर्राष्ट्रीय वर्गीकरण के अनुरूप है ।

विनिर्देश तथा चित्र आरखे, यदि कोई हो, की अंकित प्रति की आपूर्ति पेटेंट कार्यालय या उसके शाखा कार्यालयों के यथाविहित 30/- रुपये प्रति की अवायगी पर की जा सकती है ।

ऐसी परिस्थिति में जब विनिर्देश की अंकित प्रति उपलब्ध नहीं हो, विनिर्देश तथा चित्र आरखे, यदि कोई हो, की अंकित प्रति की आपूर्ति पेटेंट कार्यालय या उसके शाखा कार्यालयों के यथाविहित प्रत्येक उक्त दस्तावेज के 10 रुपये प्रति पृष्ठ भम 30/- रुपये की अवायगी पर की जा सकती है ।

Ind. Cl. : 63 B

185681

Int. Cl.⁴ : H 02 K 3/24.

* ROTOR WINDING OF ELECTRIC MACHINE WITH AT LEAST ONE ARRANGEMENT COMPRISING PLURALITY OF CONDUCTOR BARS EXTENDING ALONG A LONGITUDINAL AXIS AND STACKED ON ONE ANOTHER ALONG A VERTICAL AXIS.

Applicant : SIEMENS AKTIENGESellschaft, WITTELSBACHERPLATZ 2, 80333 MUENCHEN, GERMANY.

Inventor(s) :

1. RALF BOMBA.
2. WILHELM WESTENDORF.

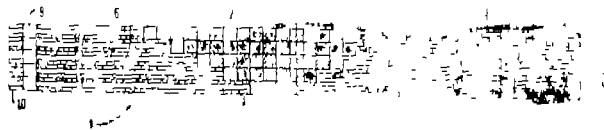
Application for Patent No. 647/Cal/95 filed on 06-06-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

8 Claims

Rotor winding of electric machine with at least one arrangement (1) comprising plurality of conductor bars (4) extending along a longitudinal axis (2) and stacked on one another along a vertical axis (3) each of said conductor bars has four ventilating ducts (6, 7) which are aligned parallel to the longitudinal axis (2) and disposed next to one another in pairs in the direction of a transverse axis (5) perpendicular to the longitudinal axis (2) and parallel to the vertical axis (3) and disposed one behind another in pairs along the longitudinal axis (2), each of said ventilating ducts reaching from an associated one of orifices (8, 9) in the vicinity of one end (10) of the arrangement (1) into one of two gas outlet zones (11) disposed approximately centrally relative to the longitudinal axis (2), said gas outlet zones having an outlet duct (12) directed at an acute angle relative to the vertical axis (3), characterized in that each of said conductor bars (4) for each pair of ventilating ducts (6, 7) disposed next to one another, the orifice (8) of one of said ventilating ducts (6) is disposed directly at one of said ends (10) and the orifice (9) of the other of said ventilating duct (7) is spaced from said end (10), and for each pair of said ventilating ducts (6, 7) disposed one behind another the orifice (8) of said ventilating duct (6) disposed

directly at said end (10) to which it leads and said orifice (9) of the other of said ventilating duct (7) spaced from said end (10) to which it leads.



(Compl. Specn. : 12 Pages;

Drgns. : 3 Sheets)

Ind. Cl. : 186 E.

185682

Int. Cl.⁴ : H 04 N 7/13.

AN APPARATUS FOR BROADCAST VIDEO BURST TRANSMISSION CYCLIC DISTRIBUTION.

Applicant : BURST. COM, INC. 1209 ORANGE STREET, WILMINGTON, COUNTY OF NEW CASTLE, U.S.A.

Inventor(s) :

1. ERIC HALL WALTERS.
2. RICHARD A. LANG.
3. EARL I. MINCER.

Application for Patent No. 899 Cal/95 filed on 02-08-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

14 Claims

An apparatus (210) for broadcast video burst transmission cyclic distribution comprising :

On-line storage means (240) for storing a predetermined number of audio/video programs and for providing access to the audio/video programs for burst transmission thereof;

burst transmission means (290) coupled to said on-line storage means for accessing said audio video programs stored in said on-line storage means;

receiving means (40, 150, 220) at each of multiplicity of subscribed locations;

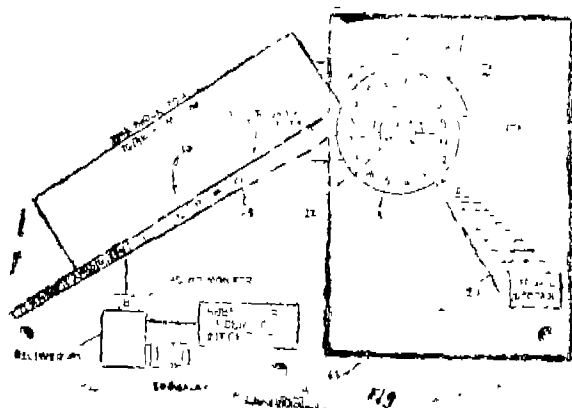
Characterized in that

the burst transmission distribution apparatus (210) provides cyclic distribution;

in that the burst transmission means (290) is coupled to a subscriber location for repeatedly burst transmitting the audio/video programs to the subscriber location in a predetermined sequence in which the programs are accessed from the on-line storage means (240); and

in that each receiving means is directly coupled to the burst transmission means (290) for receiving the audio/video programs stored in the on-line storage means (240) and the

receiving means comprises storage means (303) for selectively storing one or more of the audio video programs for real-time playback by a subscriber.



(Compl. Specn. : 30 Pages;

Drawings : 4 Sheets)

Ind. Cl. : 85 G.

185683

Int. Cl.⁴ : F 27 B 15/00.

A METHOD OF MANUFACTURE OF A SINTERED CEMENT CLINKERS AND AN APPARATUS THEREOF.

Applicant : 1. KAWASAKI JUKO GYO KABUSHIKI KAISHA, 1-1, HIGASHIKAWASAKI-CHO, 3-CHOME, CHUO-KU, KOBE, JAPAN. 2. SUMITOMO OSAKA CEMENT CO. LTD., 1, KANDA MITOSHIR-CHO, CHIYODA-KU, TOKYO 101, JAPAN.

Inventor(s) :

1. ISAO HASHIMOTO.
2. SHOZO KANAMORI.
3. MIKIO MURAO.
4. NORIO YOKOTA.
5. NICHITAKA SATO.
6. KATSUJI MUKAI.

Application for Patent No. 1048/Cal/95 filed on 31-08-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

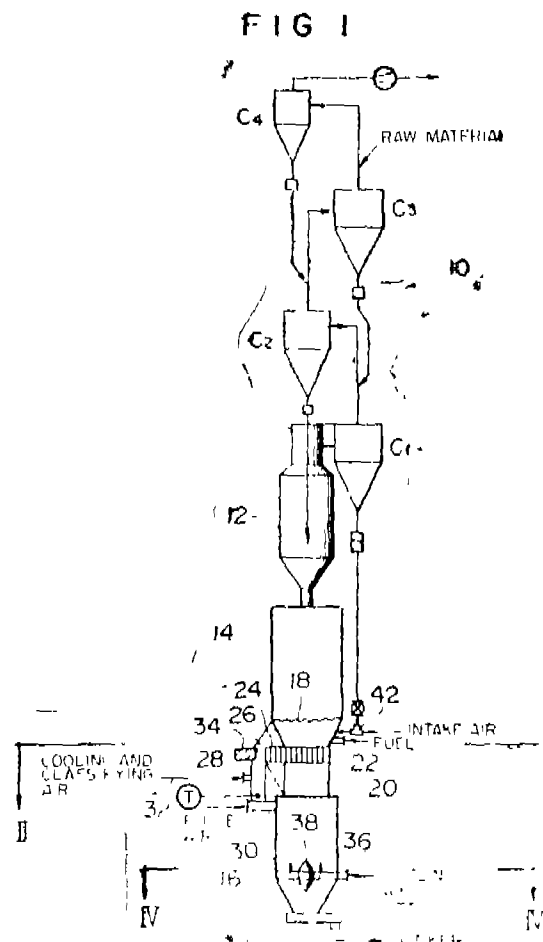
15 Claims

A method of manufacture of sintered cement clinkers comprising the steps of :

- (a) preheating raw cement powder material;
- (b) granulating and sintering said preheated raw cement powder material in a combined fluidized bed granulating and sintering furnace (14) to form granulated and sintered clinkers;
- (c) classifying said clinkers above a clinker dropping hole (26) and on a discharging grooved portion (24) said clinker dropping hole (26) being provided in a radial direction extending from an upper surface of a fluidizing gas distributor (22) of the granulating and sintering furnace (14) through the discharging grooved portion (24), said grooved portion (24) having a plurality of nozzles and being formed between the gas distributor (22) and the clinker dropping hole (26);
- (d) discharging classified clinkers from the fluidized bed granulating and sintering furnace (14) through said clinker dropping hole (26);

(e) further classifying and cooling the clinkers by blowing air into a discharge chute (28) connected to the clinker dropping hole (26) while regulating the amount of the blown air in such a manner that granulated and sintered clinkers are quenched down to primary cooling temperature and wherein a flow velocity of the air blowing from the clinker dropping hole (26) is different from a flow velocity of air flowing through the nozzles of the gas distributor (22); and

(f) introducing the clinkers into a cooling device (16) via hermetic discharge means (30) provided below a classifying and cooling air intake pipe (32).



(Compl. Specn. 27 Pages;

Drawings. 7 Sheets)

Ind. Cl. : 143 D2

185684

Int. Cl.⁴ : B 65 D 30/18, 33/02.

A CONTAINER HAVING A RECTANGULAR BASE AND ITS MANUFACTURE.

Applicant & Inventor(s) : AVNER GELLER, 6 ACHUZAT BAIT STRI ET, TEL-AVIV 65143, ISRAEL.

Application for Patent No. 1147/Cal/95 filed on 22-09-95.

Appropriate Office for Opposition Proceedings (Rule, 4 Patents Rules, 1972), Patent Office, Calcutta.

25 Claims

A container (11) having a rectangular base (20) formed out of a third film sheet (3) and walls formed out of two first and second film sheets (1, 2); the two first

second film sheets being welded to one another along their lateral edges (6) and sandwiching therebetween at a bottom portion, two lateral edges (8) of the third film sheet (3) which are folded about a fold line (7) thereof;

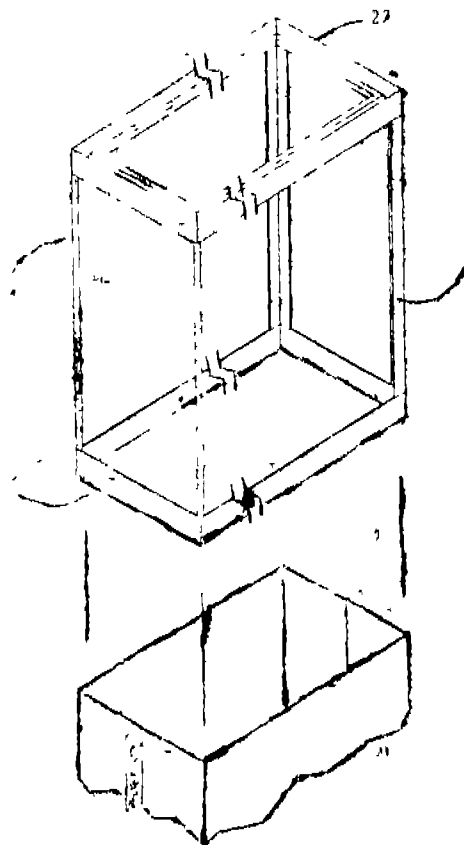
a bottom edge (5) of each of the first and second film sheets (1, 2) being welded to a corresponding bottom edge (4) of the third film sheet (3);

the container (11) characterized in that;

both faces of said third film sheet (3) and at least an inner face of the two first and second film sheets (1, 2) are made of a heat weldable material;

the container has two overlapping isosceles triangular portions (19) formed out of the third film sheet (3), with a base of each triangle (19) defining a side edge of the container's base (20), whereby front and rear edges of the container's base extend between said side edges; and

the container's rectangular structure being fixed by welding the base of the outer triangle of the overlapping triangular portions (19) to the sheets).



(Compl. Specn. : 5 Pages;

Drawg. Sheets 20)

Ind. Cl. : 128 F, 123 G.

18*685

Int. Cl.⁴ : A 61 M 11/00, 11/02

A METHOD OF PRODUCING A CONSOLIDATED MEDICAMENT RESERVOIR AND AN APPARATUS FOR CARRYING OUT THE METHOD.

Applicant : GGU GESELLSCHAFT FÜR GESUNDHEITS- UND UMWELTFORSCHUNG MBH & CO. VERI RIEBS KG, IN DER SCHILDWACHT 13, D-65933 FRANKFURT. FED. REP. OF GERMANY.

Inventors :

1. BURGCHAT HANS.

2. HEIDE HELMUT.

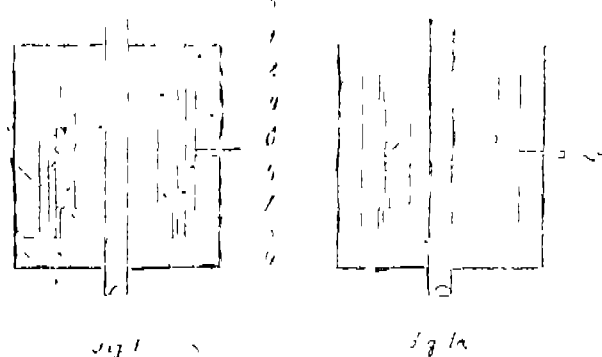
3. PABST JOACHIM.

Application for Patent No. 1237/Cal/95 filed on 13-10-95.

Appropriate office for opposition proceedings (Rule 4, Patents Rules 1972) Patent Office, Calcutta

- 7. Claims

A method of manufacturing a consolidated medicament reservoir for generating inhalable drug particles by means of a metering device comprising a removal unit for abrading the drug supply, said process comprising the step of applying from outside a pressing force of between 50 and 500 MPa onto a medicament material in a direction toward a core positioned centrally in the medicament material resulting a substantially uniform radial density of the solidified drug supply.



(Compl Specn. : 15 Pages;

Drawg. : 1 Sheet)

Ind. Cl. : 128 K

185686

Int. Cl.⁴ : A 61 B 17/32.

A DEVICE FOR EXCISION OF A FISTULA.

Applicant : MOHSIN-AL-TAMEEM OF KING SAUD UNIVERSITY & KING KHALID UNIVERSITY HOSPITAL, P.O. BOX 7805, RIYADH, 11472, SAUDI ARABIA.

Inventor(s) Mohsin Al-Tameem.

Application for Patent No. 1354/Cal/95 filed on 30-10-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

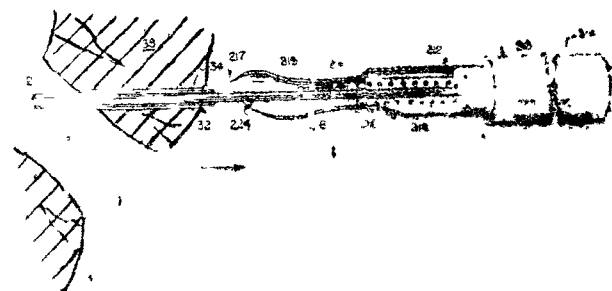
9 Claims

A device (210) for excision of a fistula (32) having a fistulous tract (34), said device comprising : a first bar (211) having a longitudinal axis and adapted to be inserted into the fistulous tract;

a cutting tool (212) cooperating with said first bar; a common base (213) fixing a proximal end of said first bar to a proximal end of said cutting tool so that said first bar does not move relative to said cutting tool and remains parallel to said cutting tool, whereby the fistulous tract is excised by moving said device relative to the fistulous tract to thereby core the fistulous tract from surrounding tissue;

a disk-shaped stabilizer (215) which is lidable over said first bar within a body of said tool so as to maintain said first bar in parallel to said cutting tool; and

a spring (216) for maintaining said stabilizer near a distal end of said cutting tool, so that exposed portions of the fistulous tract slide between said first bar and said cutting tool and push against said stabilizer, thereby compressing said spring as said device is advanced along said fistulous tract.



(Compl. Specn. 23 Pages ;

Drawg. 9 Sheets)

Int. Cl. : 39 O

185687

Int. Cl. : C 01 B—33/02

A PROCESS FOR PREPARING A ALUMINO-SILICATE DERIVATIVE FROM 2:1 CLAY MINERALS

Applicant : THE UNIVERSITY OF QUEENSLAND, OF ST. LUCA, QUEENSLAND, 4072, AUSTRALIA.

Inventor(s) :

1. BALBIR SINGH
2. IAN DONALD RICHARD MACKINNON
3. DAVID PAGE

Application for Patent No. : 1355, Cal 95 filed on 10-95.

(Convention No. PN0121 on 16-12-94 in Australia).

Appropriate office for opposition proceedings (Rule 4, Patents Rules 1972) Patent Office, Calcutta.

10 Claims

A process for preparing an alumino-silicate derivative from 2:1 clay minerals having :

(a) an amorphous X-ray diffraction signal manifest as a broad hump in X-ray powder diffraction between 22° and 27° in CuK α radiation; and

(b) the presence of primarily tetrahedrally co-ordinated aluminium;

(c) a cation exchange capacity of 20—900 milli-equivalents per 100 g as measured by exchange of ammonium metal cations from an aqueous solution, which cation exchange capacity is greater than that of an original 2:1 clay starting material; and

(d) a surface area less than 400 M²/g as measured by a BET isotherm, which surface area is greater than that of the original 2:1 clay starting material;

wherein said process comprises the step of reacting said 2:1 clay mineral with a molar excess of compound MX, wherein M is alkali metal or ammonium ion, as hereinbefore defined and X is halide as hereinbefore defined, and optionally, wherein the said alkali metal or ammonium ion is at least partly exchanged with one or more other cations, as herein described.

(Compl. Specn. : 21 Pages ;

Drawg. : 4 Sheets)

Int. Cl. : 50 F

185688

Int. Cl. : F 25 D—21/00.

"A REFRIGERATOR".

Applicant : SAMSUNG ELECTRONICS CO. LTD., OF 416, MAETAN-DONG, PALDAL-GU, SUWON-CITY, KYUNGKI-DO, KOREA.

Inventor(s)

1. HAN-JU YOO
2. JAE-SEUNG LEE
3. KUK-JEONG SEO
4. GI-HYONG LEE
5. HAE-JIN PARK
6. JONG-KI-KIM

Application for Patent No. 1466/Cal/95 filed on 16-11-95.

(Convention No. 95—39 on 04-01-95 & 95—40 on 04-01-95 & 95—14286 on 31-05-95 all in Korea)

Appropriate office for opposition proceedings (Rule 4, Patents Rules 1972) Patent Office, Calcutta.

WE CLAIM :

1. A refrigerator comprising :

a refrigerating compartment (24) for storing food to be refrigerated;

a freezing compartment (22) for storing food to be frozen, the freezing compartment being defined above the refrigerating compartment by an intermediate partition member (21);

a compressor (56) adapted to compress a refrigerant to high temperature and pressure under the control of compressor driving means (150);

a pair of heat exchanging means (26, 40) such as evaporators, respectively associated with the freezing and refrigerating compartments so heat-exchange flows of air being blown into the freezing and refrigerating compartments, with the refrigerant, to thereby cool the air flow

a pair of fan means (30, 44) respectively associated with the freezing and refrigerating compartments for supplying the cold air flows heat-exchanged with the heat exchanging means to the freezing and refrigerating compartments under the control of fan motor driving means (160);

a pair of heating means (33, 47) respectively associated with the freezing and refrigerating compartments for defrosting the freezing and refrigerating compartment heat exchanging means under the control of heater driving means (130);

temperature sensing means (111, 112) adapted to sense respective internal temperatures of the freezing and refrigerating compartments; and

temperature setting means (101, 102) adapted to set respective desired temperatures of the freezing and refrigerating compartments, the temperature setting means also setting a rapid freezing operation and a rapid refrigerating operation; characterized by :

conduit temperature sensing means (140, 141, 142) coupled to conduits (32, 46) of the freezing and refrigerating compartment heat exchanging means (26, 40) and adapted to sense respective conduit temperatures of the freezing and refrigerating compartment heat exchanging means during respective heat generating operations of the freezing and refrigerating compartment heating means (33, 47); and

control means (120) coupled to the compressor (56), the heat exchanging means (26, 40), the fan means (30, 44), the heating means (33, 47), the temperature sensing means (111, 112), temperature setting means (101, 102) and the conduit temperature sensing means (140, 141, 142), and adapted to determine the point of time when a defrosting operation for each heat exchanging means begins on the basis of a drive time of the compressor and respective

drive times of the freezing and refrigerating compartment fan fans, the control means also calculating gradients of respective internal temperatures of the freezing and refrigerating compartments based on temperatures sensed by the temperature sensing means, thereby determining defrost requiring conditions of the freezing and refrigerating compartments.

FIG. 3

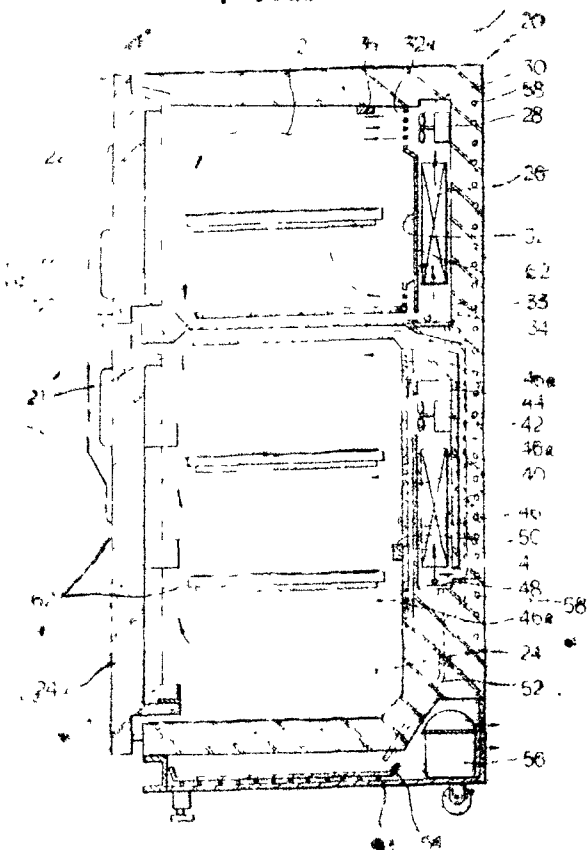
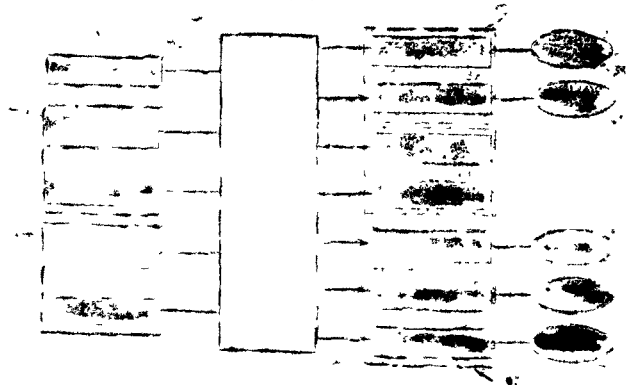


FIG. 4



(Compl. Specn. : 87 Pages ;

Drgns. : 15 Sheets)

Ind. Cl. : 64 B;

185689

Int. Cl. : H 05 K 1/11.

AN ELECTRICAL CONNECTOR FOR MOUNTING TO A PRINTED CIRCUIT BOARD.

Applicant : MOLEX INCORPORATED, OF 2222 WELLINGTON COURT, Lisle, ILLINOIS 60532, UNITED STATES OF AMERICA.

Inventor : TOH SFR KIAT.

Application for Patent No. 1565/Cal/95 filed on 04.12.95

(Convention No. 08/381,614 filed on 30-01-95 in U.S.A.)

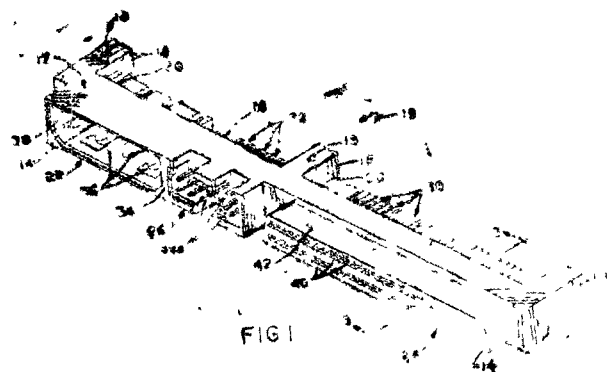
Appropriate Office for Opposition Proceedings (under Patents Rules, 1972), Patent Office, Calcutta.

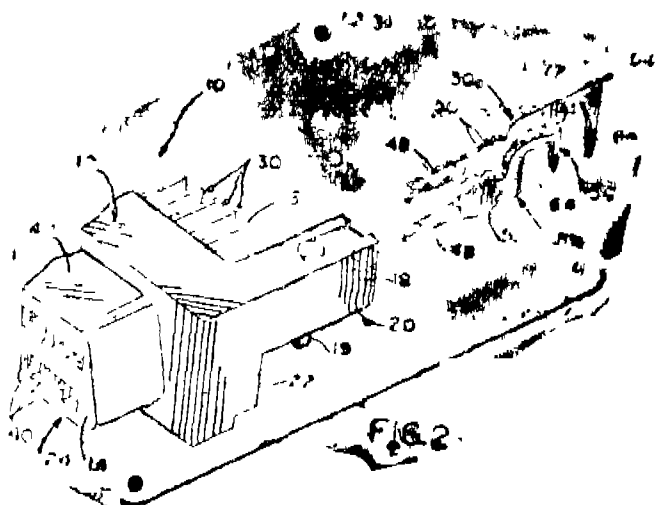
4 Claims

An electrical connector (10) for mounting to a printed circuit board, comprising :

an elongated dielectric housing (12) adapted for mounting along an edge (44c) of a printed circuit board (44), a mounting portion (18) of the housing being mounted to a top surface (44a) of the board to define a seating plane for the connector, the housing having terminal-receiving passages (40) extending generally parallel to said seating plane between a front mating face (14) of the housing and a rear terminating face (16) thereof, the passages being arranged in pairs of upper and lower passages longitudinally along at least a portion of the housing, with the passages in each pair being in a plane generally perpendicular to said seating plane;

characterized in that a plurality of terminals (30a, 30b) is mounted in generally coplanar pairs on the housing (12), each terminal comprising a retention portion for securing the terminal within one of said passages, each terminal comprising a mating portion (48) in one of said passages (40) and a generally inverted U-shaped terminating portion (54, 56) projecting rearwardly of one of said passages for termination to a circuit trace on the printed circuit board the termination portion being blanked from generally planar sheet metal material and having stamped edges generally perpendicular to the plane of said sheet metal material and a pair of generally parallel major surfaces between said stamped edges and oriented generally parallel to the plane of the sheet metal material, the U-shaped terminating portion (56) of a lower terminal (30b) in each pair thereof being nested within the U-shaped terminating portion (54) of an upper terminal (30a) in each pair thereof and each of the terminating portions (54, 56) defining an inner leg (58, 64) generally adjacent said rear terminating face, an outer leg (60, 66) generally parallel to said inner leg, and a bridge portion (62, 68) extending between said inner leg and said outer leg, the major surfaces of the bridge portion being generally perpendicular to the seating plane, and the mounting portion of the housing being positioned for locating the seating plane above a lowest extremity of the mating portion of the lower terminal.





(Compl Specn 13 Pages;

Drng. 3 Sheets)

Ind. Cl.: 32 F1

185690

Int Cl.: C 07 D 499/00.

PROCESS FOR THE PREPARATION OF 2-HALOMETHYL-PENEMS.

Applicant: MENARINI INDUSTRIE, FARMACEUTICHE RIUNITE S.R.L., OF VIA SETTE SANTI 3, 50131 FIRENZE, ITALY & ISTITUTO LUSO FARMACO D'ITALIA S.P.A. OF VIA CARNAIA 26, 20123 MILANO, ITALY.

Inventors:

- 1 PEROTTA ENZO,
- 2 ALTAMURA MARIA.

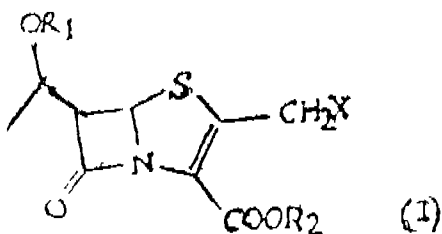
Application for Patent No. 322/Cal/97 filed on 21-02-97

(Convention No. FI 96A 000033 on 27-02-96 in Italy)

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta

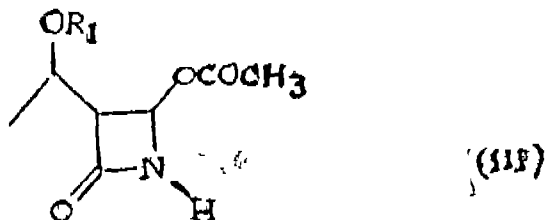
4 Claims

1 Process for the preparation of 2-halomethyl-penems of formula (I)

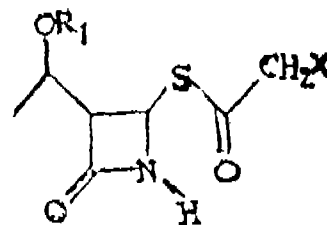


wherein R₁ is a protecting group for the alcoholic hydroxyle, such as herein described, R₂ is a protecting group for the carboxyle, such as herein described, and X is an halogen, comprising the following steps:

(a) compounds of formula (III)

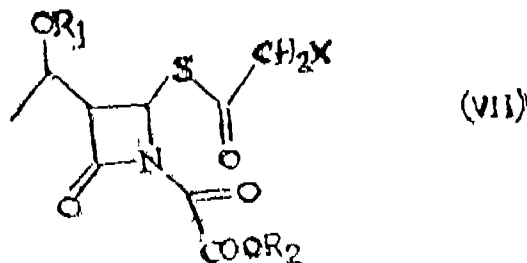


wherein R₁ is as above defined, are reacted with a 2-halo-thioacetic acid in an organic solvent in the presence of an organic base and a Lewis acid, at a temperature of -10°C to +40°C, to give compounds of formula (V)



wherein X is halogen and R₁ is above defined;

(b) the above said compounds of formula (V) are reacted with an oxallyl chloride ester in an organic solvent in the presence of an organic base at a temperature of -60°C to +20°C, preferably -20°C to +10°C to give the compounds of formula (VII)



wherein R₁, R₂ and X are as above defined; and

(c) the compounds of formula (VII) are finally cyclized in an appropriate solvent at 20°C to 140°C for 1 to 120 h, under the action of an organic phosphite or phosphonite, to give compound of formula (I).

Compl Specn 13 Pages

Ind Cl.: 55E4

185691

Int Cl.: A 61K 31/00

A PROCESS FOR THE MANUFACTURE OF ANDROSTANE-17 CARBOTHIOATES.

Applicant: CHEMAGIS LET., A REGISTERED ISRAELI CORPORATION OF 29 IEHI STREET BNEI BRAK 51200 ISRAEL

Inventor: STEPHEN CHERKEZ—ISRAEL.

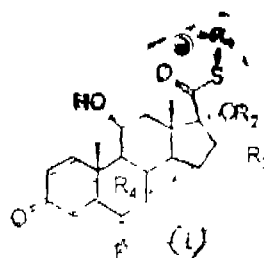
Kind of Application: Complete.

Application for Patent No. 1716/Del/94 filed on 30-2-94

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

6 Claims

A process for the preparation of an androstane-17 carbathioic ester of general formula I



wherein R_1 is a fluoromethyl, difluoromethyl, trifluoromethyl or polyfluoromethyl group,

R_2 represents a group COR_3 wherein R_3 is a C_{1-3} alkyl group,

R_3 represents a hydrogen atom, a methyl group which may be in either or B-configuration; or a methylene group

R_4 represents a hydrogen, chlorine or fluorine atom;

R_5 represents a hydrogen of fluorine atom and the symbol represents a single or double bond

by direct esterification of a corresponding androsane-17 carboxylic acid of formula I wherein R_1 is H with a halofluoromethane of formula XCH_2F , $XCHF_2$ or XCF_3 wherein $X=Br$ or Cl and optionally in the presence of a catalyst as herein defined.

(Compl. Specn. 13 Pages ;

Drng. Sheet Nil)

Ind. Cl.: 32 F₂d, 55 D₂, 60 X1

185692

Int. Cl.: A 01 N, 33/00, 31/00

A PROCESS FOR THE PREPARATION OF NAPHTHO QUINONE DERIVATIVES.

Applicant : BTG INTERNATIONAL LIMITED, (FORMERLY BRITISH TECHNOLOGY GROUP LIMITED) A BRITISH COMPANY, OF 10 FLEET PLACE LIMEBURNER LANE, LONDON EC4M 7SB, ENGLAND.

Inventor(s) :

BHUPINDER PALL SINGH KHAMBAY—ENGLAND,
DUNCAN BATTY—ENGLAND,
STUART CAMERON—ENGLAND AND
DAVID GORDON BEDDIF—ENGLAND

Kind of Application : Complete-Convention.

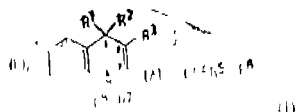
Application for Patent No. 23/Del/96 filed on 04th January, 96.

Convention application No. 9500392.7, 9500389.3, 9500394.3, 9500390.1, 9513573.7, 9513594.3, 9513595.0, 9513584.4, 9523165/U.K./10-01-95, 10-01-95, 10-01-95, 10-01-95, 4-07-95, 04-07-95, 04-07-95, 04-07-95, 13-11-95.

Appropriate Office for Opposition Proceedings (Rule 4 Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

6 Claims

A process for the preparation of a naphthoquinone derivative of formula (I)



in which

n represents an integer from 0 to 4; m represents an integer 0 or 1; each R independently represents a halogen atom or a nitro, cyano, hydroxyl, alkyl, alkenyl, haloalkyl, haloalkenyl, alkoxy, haloalkoxy, amino, alkylamino, dialkylamino, alkoxy-carbonyl, carboxyl, alkanoyl, alkylthio, alkylsulphinyl, alkylsulphonyl, carbamoyl, alkylamido, cycloalkyl, aryl,

or aralkyl group; characterised in that R^1 and R^2 each independently represent an optionally substituted alkoxy group or together represent a group M_1-O , $=S$, or $=N-OR^9$, where R^9 represents a hydrogen atom or an optionally substituted alkyl group; R

R^3 represents a group $-OR^{10}$ where R^{10} represents a hydrogen atom, an optionally substituted alkyl, aryl, alkenyl, aryl or aralkyl group, or a group $-CO-R^{11}$, $-CO-O-R^{11}$, $-SOR$

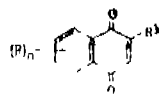
$-SOR^{11}$, $-SO_2-R^{11}$, $-P(X)$ (OR^{12})(OR^{13}), $-P(X)$ (R^{12})(R^{13}), $-P(OR^{12})$ (OR^{13}) or $-P(R^{12})(OR^{13})$

where R^{11} where represents a hydrogen atom, an optionally substituted alkyl, alkenyl, aryl or aralkyl group or a group $-NR^{12}R^{13}$, R^{12} and R^{13} independently representing a hydrogen atom or an optionally substituted alkyl group and X represents an oxygen or sulphur atom;

R^6 represents an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkoxy, alkenyloxy, cycloalkyloxy, cycloalkenyloxy or aryloxy

group; R^7 and R^8 independently represent an optionally substituted alkoxy group or together represent a group $=O$, $=S$ or $=N-OR^9$, where R^9 is as previously defined; and wherein R^4 and R^5 each independently represent a halogen atom or an optionally substituted alkyl or alkenyl group, or together with the interjacent carbon atom represent an optionally substituted cycloalkyl or cycloalkenyl ring; and A represents a straight or branched chain alkyl or alkenyl group, which may be optionally substituted, an acyclic carbon chain of which links the 3 position of the naphthalene ring shown and the moiety $-CR^4R^5R^6$; with the proviso that when R^1 with R^2 , and R^7 with R^8 are group $=O$ and $n=O$, (i) when R^4 and R^5 are methyl m is 0 and R^6 is ethenyl, then R^3 is not hydroxyl or ethanoyloxy, (ii) when R^4 and R^5 are methyl, m is 0 or m is 1 where A is $-CH_2-$ or $-(CH_2)_2-$ and R^3 is hydroxyl then R^6 is not methyl, (iii) when R^4 and R^5 are methyl, m is 1 where A is $-(CH_2)_2-$ or $-(CH_2)_2$ —and R^3 is hydroxyl then R^6 is not methyl, (iii) when R^4 and R^5 are methyl, m is 1 where A is $-(CH_2)_2-$ —and R^3 is hydroxyl then R^6 is not chloro, (iv) when R^4 and R^5 together with the interjacent carbon atom form a cyclohexyl ring, m is 1 where A is $-CH_2-$ —and R^3 is hydroxyl R^6 is not methyl, and (v) when R^4 and R^5 are methyl, m is 1 A is $-CH_2-$ —and R^3 is hydroxyl R^6 is not hydroxymethyl or the 2, 6-dimethyl-2, 6-octadienoate ester thereof.

comprising reacting a naphthoquinone derivative of the general formula (V)



in which n , R and R^3 are as defined above, in a known manner with a compound of formula $CR^4R^5R^6-(A)_m-X$ where A , m , R^4 , R^5 and R^6 are as defined for formula I, and X is a carboxylic acid group and a leaving group of the kind such as herein described.

(Compl. Specn. 58 Pages; Drang. Sheet NIL).

Ind. Cl.: 83 A-4

185693

Int. Cl.: C 12 C, 1/02

AN IMPROVED PROCESS FOR THE PREPARATION OF PADDY LIQUOR.

Applicant: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT.

Inventors:

DR. SADALI CHICKAPPAIAH BASAPPA—INDIA,
DR. RENU AGRAWAL—INDIA.

Kind of Application: Complete.

Application for Patent No. 0167/Del/96 filed on 25-01-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

2 Claims

An improved process for the preparation of paddy liquor which comprises of following steps:

(a) preparing malted paddy;

(b) malting grits of malted paddy with water in the ratio of 1:3 at 60-70°C for 60-70 min, adding alphamylase at 75-80°C at pH 6.0-6.5 and maintaining at same temperature for 30-35 min, followed by cooling to 55-60°C, adding glucoamylase at pH 4.0 to 4.5 and keeping for 120 to 130 minutes then diluting to 18% dextrose equivalent to produce amylolysed malt;

(c) adding 0.05% of yeast extract to the said malt obtained in steps (b) and adjusting the pH to 3.8 by conventional methods;

(d) then sterilising followed by fermenting using *Saccharomyces cerevisiae* and *Zymomonas mobilis* for a period of 7 days; and recovering the paddy liquor by distillation.

(Compl. Specn. 10 Pages;

Drng. Sheet Nil)

Ind. Cl.: 83B^a

185694

Int. Cl.: A23L—2/04 & A 23N—1/00

A PROCESS FOR THE PREPARATION OF FRUIT PULPS AND FRUIT JUICE POWDERS.

Applicant: CHIEF CONTROLLER RESEARCH & DEVELOPMENT, MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, B-341 SENA BHAWAN, DHQ PO, NEW DELHI-110 011, INDIA

Inventors:

BELMANNU BHAGIRATHI,
KADHI RAMARAO GOPAL RAO,
KIZHEKKEDATH JAYATHILAKAN,
HAMMANAHALLY SHARIKARATAH PHANINDRA KUMAR,
DR. KOLDE RADHAKRISHNA,
CHAMARAJANAR HAMMANATH NAYAK SIDDALAH,
DR. TALAKRAJ SHARMA,
KADAVA ANANTHARAMAN SRIHARI,
DR. THAYUR SATYANARAYANA VASUNDHARA,
DR. DESIRAJU VIJAYA RAO, (INDIAN).

Kind of application: Complete.

Application for Patent No. 247/Del/96 filed on 6-2-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

7 Claims

A process for the preparation of fruit pulp and fruit juice powders, comprising washing and/or decontaminating the fruit pulp/juice, taving said pulp/juice with sugar, fruit acids and anti bulking agents, inorganic salts, followed by freezing said fruit pulp/juice at the temperature of -20 to -40°C (for a period of 10 to 24 hours) subjected the frozen pulp/juice to the step of freeze dehydration under vacuum so as to reduce the moisture content thereof to 1-2% adding oligosaccharides and other soluble carbohydrates to impart taste, flavour and stability, and subjecting the same to the step of pulverisation to provide the dried fruit powder.

(Compl. Specn. 9 Pages;

Drng. Sheet Nil)

Ind. Cl.: 32F₂ (a) & 55F₁

185695

Int. Cl.: A61K 31/00

A METHOD FOR PRODUCING CRYPTOPHYCINS.

Applicant: UNIVERSITY OF HAWAII, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF HAWAII, U.S.A. OF 2800 WOODLAWN DRIVE, SUITE 280, HONOLULU, HAWAII 96822, U.S.A. AND WAYNE STATE UNIVERSITY, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF MICHIGAN, U.S.A. OF 4031 F/AB 656 WEST KIRBY, DETROIT, MICHIGAN 48202, U.S.A.

Inventors:

RICHARD E. MOORE—U.S.A.
MARCUS A. TIUS—U.S.A.
RUSSELL A. BARROW—U.S.A.
JIAN LIANG—U.S.A.
THOMAS H CORBETT—U.S.A.
FRIDFRICK A. VALERIOTE—U.S.A.

Kind of Application: Complete Convention.

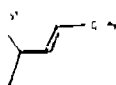
Application for Patent No. 454/Del/96 filed on 6-3-96

Convention Application No. 08/400,057/US/7-3-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005

3 Claims

A method for producing a cryptophycin comprising: converting an allylically substituted E alkene having the structure;

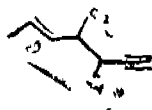


Wherein: X is O or NH, and

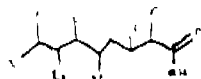
R₈ is a lower alkyl group, (C₁ to C₆) to a propargyl substituted E alkene as herein before described having the structure;



— rearranging the propargyl substituted E alkene via setreospecific witting rearrangement to produce a compound having the structure; as herein before described.

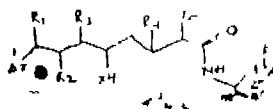


— converting this compound to a first δ-amino acid or δ-hydroxy acid having the structure as herein before described.



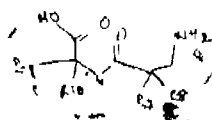
Wherein Ar is phenyl or any unsubstituted or substituted aromatic or heterocyclic group; R₁ is a halogen, SH, amino, monoalkylamino, dialkylamino, trialkylammonium, alkylthio, dialkylsulfonium, sulfate, or phosphate; R₂ is OH or SH; or R₁ and R₂ may be taken together to form an epoxide ring, an aziridine ring, an episulfide ring, a sulfate ring or a monoalkylphosphate ring; or R₁ and R₂ may be taken together to form a double bond R₁ is H; R₂ is H; R₃ and R₄ may be taken together to form a double bond.

— coupling said δ-amino acid or said δ-hydroxy acid to an α-amino acid to form a first subunit having the structure; as herein before described.



R₄ is a benzyl, hydroxybenzyl, alkoxybenzyl, halohydroxybenzyl, dihalohydroxybenzyl, haloalkoxybenzyl, or dihaloalkoxybenzyl group;

— coupling a β-amino acid to an α-hydroxy acid or an α-amino acid to form a second subunit having the structure as herein before described.



Wherein

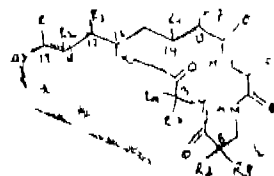
R₇ is H or a lower alkyl group, C₁ to C₆

R₈ is H or a lower alkyl group; C₁ to C₆

R₉ is H or a lower alkyl group; C₁ to C₆

R₁₀ is H or a lower alkyl group C₁ to C₆

— coupling the first subunit to the second subunit to form a cryptophycin having the structure as herein before described.



Wherein Ar, R₁ to R₁₀ are as herein defined alkyl and Y is O, NH, alkyl amino.

(Compl. Specn. 98 Pages;

Drgn. 8 Sheets)

Ind. Cl. : 32 B(3).

185696

Int. Cl.⁴ : C 07 C 33/38

A PROCESS FOR THE PREPARATION OF CYCLOTRIVERATRYLENE (CTV) MOLECULES USEFUL AS POTENTIAL CARRIER OF METAL IONS.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors :

1. DIVI SARANGAPANE IYENGAR—INDIA
2. NAGUBANDI LALITHA—INDIA.
3. RANNY MATHEW THOMAS—INDIA.

Kind of Application : Provisional-Complete.

Application for Patent No. 505/Del/96 filed on 11th March 96.

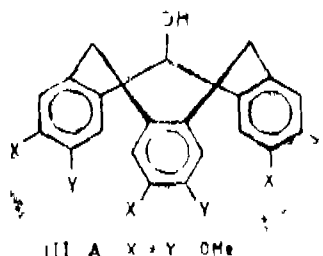
Complete left after provisional filed on 13-5-97.

Appropriate Office for Opposition Proceedings (Rule 4 Patents Rules, 1972). Patent Office Branch, New Delhi-110 005.

7 Claims

A process for the preparation of cyclotrimeratrylene (CTV) molecules useful as potential carrier of metal ions which comprises :

(a) reacting, reduced CTV ketone by known methods to cyclotrimeratrylene alcohol of formula 3



(b) reacting cyclotrimeratylene (CTV) alcohol as obtained above with substituted acetic acid chloride in presence of a conventional tertiary base in a conventional chlorinated solvent at a temperature in the range of -5°C to 35°C for a duration in the range of 10 minutes to 2 days, washing the resultant reaction mixture with acid followed by washing with alkali bicarbonate solution then drying over dehydrating agent and recovering CTV molecule by removing the solvent.

Agent:

(Prov. Specn. 5 Pages;

Drng. Sheet Nil.)

(Compl. Specn. 16 Pages,

Drng. Sheet 1)

Ind. Cl. : 32F 1, 55A

185697

Int. Cl.⁴ : A01N 59/a

A PROCESS FOR PREPARATION OF TETRA-(2-AMINOACETIC ACID) HYDROPERIODIDE.

Applicant : CHIEF CONTROLLER RESEARCH & DEVELOPMENT ORGN., MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, OF B-341, SENA BHAWAN, DHQ P.O., NEW DELHI-110011, INDIA.

Inventors :

SURENDRA KUMAR JAIN—INDIA,

JOOTU SADANANDAM RAMESH BAPU—INDIA.

Kind of Application : Complete.

Application for Patent No. 525/Del/96 filed on 12-03-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

5 Claims

A process for preparation of tetra-(2-amino-acetic acid) hydrotriiodide, comprising

(a) hydrolysing of 2-amino-acetic acid with distilled water at the temperature of $50-60^{\circ}\text{C}$ for 2-5 minutes.

(b) reacting said hydrolysed product with hydroiodic acid at the temperature of $50-60^{\circ}\text{C}$ for 4-7 minutes,

(c) reacting the above reaction mixture with sublimed iodine at the temperature of $68-75^{\circ}\text{C}$ for 10-12 minutes,

(d) hydrolysing said reactants with water at the temperature of $68-75^{\circ}\text{C}$ for 15-25 minutes and

(e) cooling said reaction mass by adding cold water so as to obtain crystalline tetra-(2-amino-acetic acid) hydroperiodide and separating the same by filtration.

Agent : L. S. Davar & Co.

(Compl. Specn. 7 Pages ;

Drng. Sheet Nil)

Ind. Cl. : 55E, 32F₈ b

185698

Int. Cl.⁴ : A 61 K 31/00.

AN IMPROVED PROCESS FOR THE PREPARATION OF 3-SUBSTITUTED-4-OXO, 6, 7-DIHYDROINDOLE (2, 3-A) QUINOLIZINE DERIVATIVES.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, (INDIA) AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT

Inventor(s) :

1. DR. VENKATACHALAM SESA GIRI—INDIA.

2. DR. PARASURAMAN JAISANKAR—INDIA.

3. MR. RANJAN KUMAR MANNA—INDIA.

Kind of Application : Provisional-Complete.

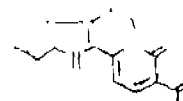
Application for Patent No. 682/Del/96 filed on 29th March 96.

Complete Left After Provisional Filed on 09-04-97.

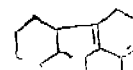
Appropriate Officer for Opposition Proceedings (Rule 4, Patents Rules 1972), Patent Office Branch, New Delhi-110 005.

2 Claims

An improved process for the preparation of 3-substituted-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine derivatives of formula III



wherein R=H which comprises : reacting 1-methyl-3, 4-dihydro-b-carboline of formula I



with dimethyl methoxymethylene malonate of formula II



in an alcohol at a temperature in the range of 0°C to 60°C for a time in the range of 8 to 24 hrs to give 3-carbomethoxy-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine a compound of general formula III wherein R=OMe, treating the above compound of formula III with hydrazine hydrate in dimethylformamide at a temperature in the range of 80 to 200°C for a period in the range of 2 to 6 hrs., recovering the solids by conventional methods, dissolving the above solids in pyridine and creating with p-toluenesulphenyl chloride at a temperature in the range of 30 to 60°C for a period in the range of 2-6 hrs., recovering the 3-substituted-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine derivatives (tosylhydrazide) compound of general formula III wherein R=NHNH₂.C₆H₄, reacting aryl tosylhydrazide of the general formula III wherein R=NHNH₂.C₆H₄ with ethylene glycol, alkali carbonate and powdered glass at a temperature in the range of 150°C to 250°C for a period in the range of 10 minute to 1 hour, recovering the 3-substituted-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine derivatives of general formula III wherein R=H and if desired purifying by conventional chromatographic methods.

(Provsn. Specn. : 4 Pages;

Drngn. : 1 Sheet)

(Compl. Specn. : 10 Pages;

Drngn. : 1 Sheet)

Ind Cl. : 55 E 1.

185699

Int. Cl.⁴ : C 07 H — 7/00.

A PROCESS FOR THE PREPARATION OF A NOVEL NONTOXIC LIPOPOLYSACCHARIDE (LPS).

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventor(s) :

1. DR. RANAN BHADRA—INDIA
2. MR. ABHIJIT NAYAK—INDIA
3. DR. PATAKI CHARAN BANDYOPADHYAY—INDIA
4. DR. SUMANTA BASU—INDIA

Kind of Application : Complete.

Application for Patent No. : 690/Del/96 filed on 29th March, 1996.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

6 Claims

A process for the preparation of a novel nontoxic lipopolysaccharide (LPS), comprising :

- (a) growing the bacteria of the genus *Acidiphilium* in a conventional nutrient medium in a known manner,
- (b) separating the said bacteria by known methods followed by washing with the above said nutrient medium devoid of carbon and nitrogen source,
- (c) extracting the bacteria obtained in step (b) with lipophilic solvent at a temperature in the range of 70—90 degree celcius,
- (d) cooling the extract thus obtained then centrifuging and dialysing,
- (e) lyophilising the dialysed material obtained from step (d) by conventional method,
- (f) treating the lyophilised material with a polar solvent with upto 4 carbon atoms to precipitate the lipopolysaccharide, filtering and drying the lipopolysaccharide.

(Compl. Specn. : 15 Pages

Drngn. : Nil Sheet)

Ind. Cl. : 55L, 32F2b.

185700

Int. Cl.⁷ : A61K 31/00.

PROCESS FOR THE PREPARATION OF A NEW SUBSTITUTED 1-PHENYL-3-PYRAZOLE CARBOXAMIDE ITS SALTS AND ITS QUATERNARY AMMONIUM SALTS.

Applicant : SANOFI, A FRENCH COMPANY, OF 32-34, RUE MARBEUF, 75008 PARIS, FRANCE.

Inventor(s) :

1. BERNARD LABELUN—FRANCE.
2. DONIELLE GUILLY—FRANCE.
3. FRANCIS DEANJEAN—FRANCE.
4. JEAN-CHARLES MOLIMARD—FRANCE AND
5. ROBERT BOIGEGRAIN—FRANCE.

Kind of Application : Complete-Convention.

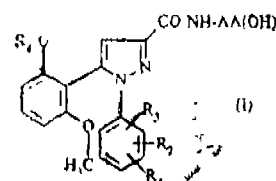
Application for Patent No. 779/Del/96 filed on 10th April 1996.

Convention Application No. 95-04350/FR/11-04-1995.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules 1972), Patent Office Branch, New Delhi-110 005.

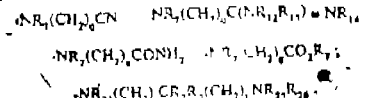
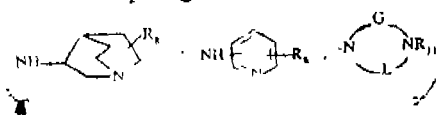
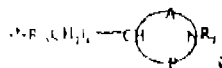
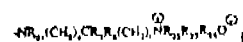
2 Claims

Process for the preparation of a new substituted 1-phenyl-3-pyrazolecarboxamide of formula I, its salts and its quaternary ammonium salts formed with acyclic or cyclic tertiary amines and its solvates.



R1 represents a group chosen from

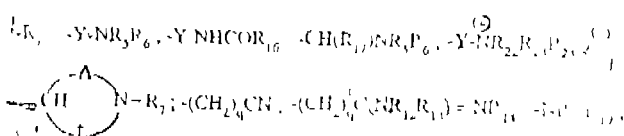
- 1. H
 - 2. $(CH_2)_n-OH$
 - 3. $CONR_2R_3$
 - 4. $CONR_2R_3$
 - 5. NR_2R_3 , on condition that R2 and R3 do not simultaneously represent hydrogen when T represents a direct bond
 - 6. NR_2R_3COR
 - 7. $HO.NR_2R_3$
 - 8. $NR_2R_3SO_2R_4$
 - 9. $NR_2R_3P_2R_5$
- where R4 represents a group chosen from
- $R_2, R_3 = NR_2(CH_2), CH_2R_2(CH_2), NR_2R_3$



T represents a group chosen from

- 1. OR_4
- 2. $CH_2R_4CO_2R_5$
- 3. $(CH_2)_nCH(NH_2)CO_2R_5$

R4 represents a group chosen from



R2 and R3 each independently represent hydrogen, a (C_1-C_6) alkyl, a (C_3-C_8) cycloalkylmethyl, a (C_3-C_8) cycloalkyl, a halogen, a trifluoromethyl, a group- OR_4 , a group- NR_5R_6 .

or R2 and R3 together constitute a tetramethylene group:

R4 represents hydrogen; a (C_1-C_6) alkyl; a (C_3-C_8) cycloalkyl-methyl; a benzyl;

R5 and R6 each independently represent a hydrogen, a (C_1-C_6) alkyl; a (C_3-C_8) alkenyl; a (C_3-C_8) cycloalkylmethyl; a benzyl; or R5 and R6 together with the nitrogen atom to which they are attached, represent a heterocycle chosen from; pyrrolidine, piperidine, morpholine, substituted at position 4 with R9,

R'_5 and R'_6 each independently represent a hydrogen or a (C_1-C_6) alkyl ;

R_7 represents a (C_1-C_4) alkyl; a phenyl which is unsubstituted or substituted one or more times with a (C_1-C_4) alkyl; a group-X- NR_5R_6 ;

R_7 represents a hydrogen, a (C_1-C_4) alkyl or a benzyl;

R_8 represents a hydrogen, a (C_1-C_4) alkyl, or R_7 and R_8 , together with the carbon atom to which they are attached, constitute a (C_3-C_5) cycloalkane;

R_9 represents hydrogen a (C_1-C_4) alkyl, a benzyl, or a group -X- $NR'_5R'_6$;

R_{10} represents a hydrogen, a (C_1-C_4) alkyl, a benzyl, a carbamoyl, a cyano;

R_{11} represents a hydrogen, a (C_1-C_4) alkyl, a group-X-OH, a group-X- $NR'_5R'_6$;

R_{12} and R_{13} each independently represent a hydrogen or a (C_1-C_4) alkyl;

R_{13} represents hydrogen, R_{14} can, in addition, represent a (C_1-C_4) alkyl when R_{12} represents hydrogen and R_{14} represents a (C_1-C_4) alkyl; - or R_{13} and R_{15} together represent a group Z;

R_{15} represents hydrogen, a (C_1-C_4) alkyl, a group $-(CH_2)_5NR_5R_6$;

R_{16} represents hydrogen, a (C_1-C_4) alkyl, a (C_3-C_8) cycloalkyl, a phenyl, a 2-piperidyl, a 3-piperidyl, a 4-piperidyl;

R_{17} represents a (C_1-C_6) alkyl, a phenyl, a benzyl, a hydroxy (C_1-C_4) alkyl, an amino (C_1-C_4) alkyl;

R_{18} and R_{19} each independently represent a hydrogen, a (C_1-C_4) alkyl; R_{18} can, in addition, represent a group $-(CH_2)_q-NR_5R_6$; or R_{18} and R_{19} , together with the nitrogen atom to which they are attached, represent a heterocycle chosen from: pyrrolidine, piperidine, morpholine, thiomorpholine, piperazine substituted at position 4 with R_9 ;

R_{20} represents hydrogen, a (C_1-C_4) alkyl, a benzyl, a hydroxyphenylmethyl, a hydroxy (C_1-C_4) alkyl, a mercapto (C_1-C_4) alkyl; a $-(CH_2)_3-NH-C(=NH)NH_2$ group, a $-(CH_2)_4NH_2$ group, a group $-CH_2-Im$ in which Im represents a 4 imidazolyl;

R_{21} represents a (C_1-C_4) alkyl, an allyl or a benzyl;

R_{22} and R_{23} each independently represent a (C_1-C_6) alkyl; or alternatively R_{22} and R_{23} , together with the nitrogen atom to which they are attached, represent a heterocycle chosen from: pyrrolidine, piperidine, morpholine and perhydroazepine;

R_{24} represents a (C_1-C_4) alkyl, a benzyl, an allyl, a hydroxy (C_1-C_4) alkyl, a (C_1-C_4) alkoxy (C_1-C_4) alkyl;

Q represents an anion;

R_{25} represents hydrogen or a (C_1-C_6) alkyl;

R_{26} represents a (C_1-C_4) alkoxy carbonyl a benzyloxy carbonyl; a (C_1-C_4) alkyl carbonyl;

R_{27} represents a hydrogen; a (C_1-C_4) alkyl, a (C_1-C_4) alkyl carbonyl; a group-CO- $(CH_2)_t-OH$; a group SO_2R_7 ;

R_{28} represents a group -X- NR_5R_6 ;

$s = 0$ to 3;

$t = 0$ to 3, on the condition that $(s+t)$, in a same group, is greater than or equal to 1;

— $r = 2$ to 5;

— $q = 1$ to 5;

— T' represents a direct bond or (C_1-C_7) alkylene;

— X represents a (C_2-C_7) alkylene;

— Y represents a (C_1-C_7) alkylene;

— Z represents a (C_2-C_6) alkylene;

— the bivalent radicals A and E, together with the carbon atom and the nitrogen atom to which they are attached, constitute a saturated 4- to 7-membered heterocycle which can, in addition, be substituted with one or more (C_1-C_4) alkyls;

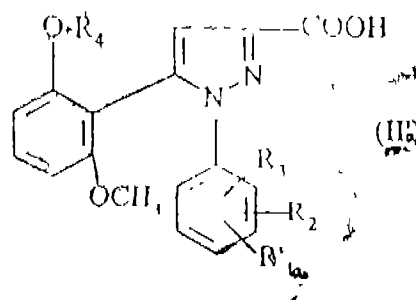
— the bivalent radicals G and L, together with the nitrogen atoms to which they are attached, constitute a piperazine ring, the said ring being optionally substituted on the carbon atoms with one or more (C_1-C_4) alkyls;

— the group -NH-AA(OH) represents the residue of an amino acid :

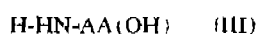


where X_a is hydrogen and X_b is a non-aromatic C_3-C_{15} carbocyclic radical; or alternatively, X_a and X_b , together with the carbon atom to which they are attached, form a non-aromatic C_3-C_{15} carbocycle; characterized in that :

(1) a functional derivatives of a 1-phenyl-3-pyrazolecarboxylic acid of formula :

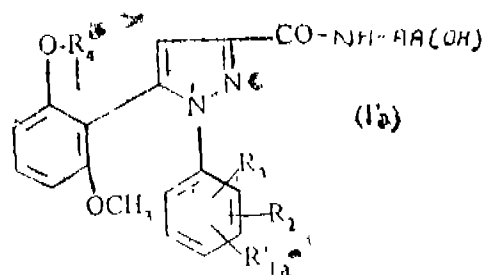


in which R_2 , R_3 and R_4 have the meanings given hereinabove for the compound of formula (I) and R'_{1a} represents R_1 as defined hereinabove for the compound of formula (I) or a precursor of R_1 chosen from nitro, amino, phthalimideo, halo, hydroxyl, sulpho, hydroxy (C_1-C_7) alkylene, cyano, carboxyl (C_1-C_7) alkoxycarbonyl and benzyloxycarbonyl groups, is treated with an amino acid, optionally protected by protective groups which are customary in peptide synthesis, of formula :



in which $-NH-AA(OH)$ is as defined hereinabove for the compound of formula (I) to obtain the functional acid derivative of formula (I'a) or compound of formula (I);

(2) optionally, the functional acid derivative thereby obtained in step (I), of formula :



is subjected to a subsequent known treatment suitable for converting the substituent R'_{1a} , a precursor of R_1 , to the substituent R_1 to obtain the compound of formula (I);

(2) optionally, the compound thereby obtained in step (I) or in step (2) is deprotected in a known manner such as herein described to yield the corresponding free acid of formula (I); and

(4) optionally, obtaining a salt of the compound (I) or its quaternary ammonium salt in a known manner such as herein described.

Agent : REMFRY & SAGAR,

(Compl. Specn. 174 Pages;

Drng. Sheet Nil.)

COMMERCIAL WORKING OF PATENTED INVENTIONS

CHEMICAL ENG. INDUSTRY LIST No. 1

The following Patents in the field of Chemical Engineering Industry are not being commercially worked in India as admitted by Patentees in the statements filed by them under section 146(2) of the Patents Act, 1970, in respect of Calendar Year 1999, generally on account of want of request for licences to work the Patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a license for the purpose.

| Patent No. | Date of Patent | Name & Address of Patentee | Title of the Invention |
|------------|----------------|--|---|
| 1 | 2 | 3 | 4 |
| 180058 | 28-03-90 | Advanced Elastomer systems L.P. of the state of Delaware, USA. | Process for preparing a dynamically vulcanized composition. |
| 180333 | 23-12-87 | Albright & Wilson UK Ltd of 210-222 Hagley Road West, West midlands, England. | A process for producing an anticorrosive material by reaction of a trivalent material compound. |
| 180870 | 17-05-91 | Allied signal Inc. of Delaware columbia road and park Avenue, New Jersey USA. | A process for the preparation of at least 9% amorphous Fe, B Si. alloy strip. |
| 173090 | 02-03-89 | A. Nattermann & CIL. GMBH, of Nattermannallee 1, D-5000 Gologne 30 West Germany. | Process for the preparation of a non-sticky phospholipid containing composition. |
| 174945 | 06-03-89 | Basf Lacke + Farben Aktiengesellschaft of Max-Winkelmann-strasse West Germany. | Process for the preparation of polyester and alkyl resins |
| 175449 | 21-04-88 | Bayer Antwerpen N.V. a Body Corporate Organised Under the Laws of Belgium. | A process for the production of pure gas containing substantially nitrogen. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|---|
| 178173 | 09-10-90 | Dr. Beck & Co. Aktiengesellschaft of crossmanstrasse 103, 2000 Hamburg 28 Germany. | A wire enamel composition |
| 177695 | 17-10-88 | Biolandos, a company organised of lesen, F-40420 Labrit France. | Continuously operating extraction apparatus capable of the charging thereto and discharging therefrom of solid products to be processed therein |
| 167510 | 29-07-88 | BP Chemicals Limited of London SW1W OSU, England. | A process for the polymerisation of alpha olefins using a ziegler-natta catalyst and two organometallic components. |
| 165770 | 13-02-86 | Do. | Gas fluidised bed process for the production copolymer. |
| 172581 | 30-11-87 | Do. | A process for the production of the additive concentrate suitable for incorporation into a finished lubrication oil composition. |
| 173493 | 14-05-86 | Do. | A process for polymerisations of one or several alpha olefins. |
| 173932 | 14-05-86 | Do. | Process for polymerisation or copolymerisation of alpha olefins in a fluidised bed in the presence of ziegler natta catalyst system. |
| 174317 | 07-02-89 | Do. | A process for preparing a preactivated support suitable for the production of a ziegler type supported. |
| 174772 | 21-03-89 | Do. | Process for preparing a ziegler-natta catalyst. |
| 175450 | 21-04-88 | Do. | Process for the production of 2, 3-dimethyl butene-1, from propene. |
| 176062 | 22-11-88 | Do. | A process for the preparation of a solid ziegler natta catalyst. |
| 176856 | 29-01-90 | Do. | Process & apparatus for gas phase polymerization of olefine in a fluidized bed reactor. |
| 177254 | 09-02-90 | | A liquid phase process for preparing a carboxylic acid |
| 177715 | 19-12-89 | Do | A process for continuous gas phase polymerization of one or more alphaolefins. |
| 182328 | 10-09-93 | British Technology Group Ltd., of 701, Newington Causeway, London SE1 6BU, England. | A process for the preparation of a pesticidal compound. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|---|
| 178478 | 26-11-90 | Chemetics International Company Ltd., British Columbia, Canada V6 J1 c7. | A metallic electrode for electrochemical process. |
| 176157 | 16-08-89 | Compagnie Industrielle De Tubes ET Lampes Electriques citel, of 8 Avenue Jean-Jaures, 92130 Issy-Les Moulineaux, France. | Gas lightning arrester. |
| 175144 | 15-05-89 | Duracell Internation Inc, USA. | Process for producing beta manganese dioxide. |
| 178934 | 04-04-90 | Eastman Chemical Company of 100 North Eastman Road Kingsport, United States of America. | A process for preparing a synthetic fibre for spontaneously transporting water and a synthetic fibre prepared thereby. |
| 176094 | 27-07-88 | Edward F Mayer of 355 Countryclub Boulevard, Winnipeg Manitoba R3K- *X4, Canada. | Gasification apparatus for producing combustible gases from solid organic materials. |
| 172278 | 24-11-87 | Energy Conversion Devices Inc. of America of 1675 West Maple Road, Michigan, United States of America. | Method for treatment of a hydrogen storage negative electrode to provide minimal hydrogen gas generation charac- teristics thereto. |
| 172283 | 01-12-87 | Do. | A rechargeable electrochemical cell. |
| 172734 | 13-05-88 | Do. | A method of fabrication microcrystalline semiconductor alloy material. |
| 175140 | 22-12-88 | Do. | A method for the manufacture of a large area metal hydride electrochemical of hydrogen storage alloy negative electrode for use in a rechargeable nickel metal hydride battery. |
| 177048 | 24-11-97 | Do. | A sealed rechargeable hydrogen storage electrochemical cell |
| 174722 | 13-12-88 | Exxon Research & Engineering Company of New Jersey 07932, United States of America. | A method for producing a tube oil base stock or blending stock of improved day light stability. |
| 174723 | 13-12-88 | Do. | Method for isomerizing wax to tube base oils. |
| 176840 | 18-12-89 | Do. | A process for preparing amino isobutyric acid and its salts. |
| 179091 | 09-04-87 | Do. | An aqueous acid gas scrubbing com- position. |
| 179099 | 09-04-87 | Do. | A process for removing CO ₂ and other acid gases from a normally gaseous mixture |

| 1 | 2 | 3 | 4 |
|--------|----------|--|--|
| 171197 | 18-08-87 | The Geon Company of the state of Delaware, U.S.A. of 6100 Dak tafe Boulevard Cleveland, Ohio 44131. USA. | Process for producing porous skinless agglomerated polyvinyl resin particles. |
| 171360 | 25-08-87 | Do. | A thermoplastic composition of vinyl chloride resin and glass fibres. |
| 171367 | 25-08-87 | Do. | A process for the production of vinyl chloride polymers. |
| 172302 | 10-02-88 | Do. | A process for producing a cross linked PVC. |
| 172981 | 08-04-86 | Do. | A process for homopolymerization of vinyl monomers and copolymerization of vinyl monomers. |
| 175433 | 23-09-88 | Do. | A thermoplastic composition. |
| 177460 | 25-08-87 | Do. | A chain transfer composition for use inter alia in polymerizing vinyl chloride monomer and the process of preparing the same. |
| 166663 | 09-07-86 | The Goodyear Tire & Rubber Company of the state of Ohio United States of America. | A process for making a self-emulsifiable resin powder. |
| 167972 | 02-07-85 | Do. | Siloxane containing network polymer. |
| 173032 | 30-01-87 | Do. | A method for polymerizing 1,3-butadiene into high CIS-1, 4 polybutadiene in a continuous process. |
| 175715 | 30-06-89 | Do. | A polymeric composition used for manufacturing articles such as a circumferential fabric reinforced rubber belt a untread gum layer or a gum strip employed in pneumatic rubber fibre. |
| 176090 | 21-07-89 | The Goodyear Tire & Rubber Company of the state of America, U.S.A. | A method for the preparation of a vulcanized rubber at an increased rate of vulcanization. |
| 180055 | 23-03-90 | ICI Australia Operations propriety, Ltd of 1, Nicholson Street Melbourne, Victoria 3001, Australia. | A process for the preparation of care-sheath, addition polymer particle. |
| 177045 | 10-10-90 | Imperial Chemical Industries PLC. of London SW1P 3JF, England. | A process for making a film forming thixotropic binder system suitable for use in thixotropic coating composition. |
| 180874 | 13-06-91 | Do. | A method for preparing zeolite Nu-85. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|--|
| 167959 | 18-07-86 | Interox of 33 rue du prince Albert, B-1050, Brussels, Belgium. | Process for the delignification of cellulosic substances. |
| 180163 | 11-07-90 | Do. | Stabilized aqueous solution of hydrogen peroxide and process for preparing the same. |
| 178832 | 19-12-89 | Institute Francais Du Petrole of 4 Avenue De-Bocq-preag cedex France. | Catalyst composition for being employed in reactions such as herein described. |
| 178932 | 18-12-89 | Do. | Zeolites. |
| 167310 | 18-07-86 | Interox of 33 rue du prince Albert, B-1050, Brussels, Belgium. | Process for the delignification of cellulosic substances. |
| 176531 | 28-08-89 | Jean-pierre Denis a French citizen of France. | Ammunition for firearms. |
| 178984 | 26-11-90 | Kali chemiy AG Hans-Backler Allee-20 Post-fach 220, D-3000, Hannover, West Germany. | Process for producing an inorganic barium containing solids composition. |
| 180918 | 10-04-91 | Karl Fisher Industrieanlagen GM BH, of Holzhauser strasse 157, D-1000, Germany. | A reactor for highly viscous media. |
| 167666 | 13-10-86 | The Lubrizol Corporation of Ohio, USA. | A water in oil emulsion for use such as hydraulic fluids acidizing fluids or explosive compounds. |
| 167812 | 10-07-86 | Do. | A process for the production of methacrylic esters. |
| 169547 | 30-11-87 | Do. | A process for the production of an additive concentrate suitable for incorporation into finished lubricating oil composition. |
| 177820 | 12-07-90 | Do. | A lubricating Oil composition. |
| 167837 | 05-08-86 | Do. | A fuel composition for internal combustion engine. |
| 169508 | 17-12-86 | Do. | Composition for use as an additive for functional fluids. |
| 176002 | 06-07-88 | Do. | Lubricant composition & a fibrous material having applied thereon said composition. |
| 176245 | 17-12-86 | Do. | A fuel composition. |
| 176271 | 25-07-86 | Do. | A process for making a water dispersible hydrocarbyl substituted succinic acid and or anhydride/amine acriminated poly (oxyalkylene) REACTION product. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|--|
| 176418 | 19-10-89 | The Lubrizol Corporation of Ohio, USA. | Liquid composition containing carboxylic esters. |
| 176479 | 30-11-87 | Do. | A process for preparation of an additive concentrate for incorporating in a lubricating oil composition. |
| 176832 | 20-11-89 | Do. | Liquid composition for use interalia as refrigeration liquid. |
| 178816 | 05-09-89 | Do. | Lubricant Composition. |
| 178991 | 30-11-87 | Do. | A process for the production of a finished lubricating oil composition. |
| 178994 | 30-11-87 | Do. | A process for the preparation of an additive concentrate suitable for incorporation into a finished lubricating oil composition. |
| 180570 | 06-07-88 | Do. | A process for preparing a spin fiber lubricant additive. |
| 181298 | 02-09-92 | Do. | A composition for treatment of polymer fabrics. |
| 167496 | 18-03-87 | The Malaysian Rubber producers Research Association, England. | A method of preparing an elastoplastic composition. |
| 172101 | 27-11-86 | Do. | Method for producing a low molecular weight rubber latex. |
| 172769 | 26-04-88 | Maschinenfabrik wifag, of wylerringstrasse 39 ch-3001 Bern, Post Box 2750, Switzerland. | Inking unit for a printing machine. |
| 174222 | 03-01-89 | Middleburg steel & Alloys (proprietary) Ltd., of 3rd floor Esse Hoise sandton city office park transvaal province South Africa. | A method for the production of desulphurised ferrochromium. |
| 175707 | 15-05-89 | Do. | A method for the manufacture of steel. |
| 177046 | 15-10-90 | Mitsui Petrochemicals Industries Ltd., of Chiyodu-ku, Tokyo, Japan. | Lubricant oil composition. |
| 180192 | 08-10-90 | Do. | Lubricant oil composition. |
| 177061 | 25-05-90 | Monsanta company of United state of America. | A hydroxyalkanoate (HA) polymer composition & a process for the preparation thereof. |
| 178992 | 13-12-90 | Do. | A hydraulic fracturing fluid composition & a method for the preparation thereof. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|---|
| 179227 | 14-12-90 | N.V. Bekaert S.A. of Bekaertsstraat 2, B-8550 Zwevegem, Belgium. | A process for the preparation of a coated metal substrate for reinforcement of elastomers. |
| 174646 | 09-08-88 | Novophalt overseas S.A. of 11, Boulevard du prince Henri P.O. Box-410, Luxembourg. | Process for the production of bituminous binder modified with thermoplastic Synthetic Material. |
| 180402 | 21-05-91 | Pannevis B.V. a Dutch corporation of Electro nweg 24,3542 Ac Utrecht, The Netherland. | A device for removing liquid from a mixture of liquid and solid matter. |
| 179974 | 06-06-90 | Pluss Stauder AG, of CH-4665, of tringen Switzerland. | An aqueous suspension containing a dispersed substance and a despersing agent & a process for preparing the same. |
| 182360 | 30-12-93 | Polymer Technology corporation of 100 Research Drive United States of America. | A process for the preparation of an opthalmic solution. |
| 177453 | 17-04-90 | Procedes Petroliers ET Petrochimiques & Eric Lenglet of French co. of France | A method for the preparation of de-coked installation for cracking hydro-carbon. |
| 176404 | 28-08-89 | Rem Chemicals Inc. of 325 West Queen street southington connecticut, USA. | Physiochemical process for refining magnetic stainless steel surface of objects. |
| 176867 | 03-08-90 | Do. | A liquid composition for use in the preparation of an aqueous composition for physicochemical refinement and burnishing of metal surfaces of objects. |
| 180630 | 20-07-93 | Rohm And Haas company of Independence Mall West Philadelphia, U.S.A. | A process for preparing an azadirachtin containing extract. |
| 181489 | 21-03-91 | Rohm And Haas Company of the State of Delaware of pennsylvania 19105, U.S.A. | Process for making a polymer having a selected uniform final particle. |
| 178023 | 08-11-90 | Rudolf W. Gunnerman of 4100 Folsom Boulevard D, Sacramento California United States of America. | An aqueous fuel composition for an internal combustion engine. |
| 178658 | 01-11-90 | The Secretary of State for Defence in her Britannic Majestys Government of The U. K. England. | A Process for the manufacture of heat treated aluminium lithium alloy material. |
| 167615 | 6-02-87 | Shell International Research, Maatwckap-pij. .B. V. Netherlands. | A process for the preparation of a carbounlated elefinically unsaturated compound. |
| 169589 | 20-10-87 | Do. | Improved catalyst composition for use in the production of ethylene oxide. |
| 176468 | 20-10-87 | Do. | Process for the production of ethylene oxide from ethylene & OXYGEN. |
| 177258 | 06-03-90 | Do. | Process for the production of aluminium hydroxide from bauxite. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|--|
| 179984 | 17-05-90 | Shell International Research, Maatwekappij, B. V. Netherlands. | Oil composition. |
| 180176 | 13-08-90 | Do. | Process for the preparation of random or block copolymers of conjugated diener & vinyl aromatic compounds. |
| 180304 | 22-01-91 | Do. | A process for producing a powder of free flowing polymer particles. |
| 180325 | 26-02-91 | Do. | A toughened alpha- polyamide composition & process of preparing the same. |
| 180331 | 08-03-91 | Do. | A process of producing a functionalized derivative of elastomeric block polymer. |
| 180553 | 01-07-91 | Do. | Hydrocarbon oil composition. |
| 180739 | 20-03-91 | Do. | A hot melt adhesive composition having a low viscosity at low application temperature. |
| 180740 | 20-03-91 | Do. | A hot melt adhesive composition having a low viscosity at low application temperature. |
| 181265 | 20-02-91 | Do. | A process for the preparation of linear olefins. |
| 166668 | 02-09-86 | Societe Nationale Des poudres ET Explosifs of France. | A propellent composition. |
| 176841 | 20-12-89 | Sorelec, of La Motte saint Euverte saint jean de Braye, Loiret France. | Process for cooling and dehumidifying hot damp air. |
| 167486 | 12-09-86 | Toyo Engineering Corporation of Japan. | Process for treating urea granules with a urea melt as liquid coating material in a fluidizing bed to obtain coated urea granules. |
| 178997 | 23-08-98 | Uniroyal Chemical Company Inc. of the State of New Jersey World Headquarters Middlebury, USA. | A degradation resistant polymer composition. |
| 176714 | 15-11-89 | Zeneca Ltd a British Company of Imperial Chemical House Millbank London SW1P3JF, England. | A process for the preparation of reactive dyes. |

COMMERCIAL WORKING OF PATENTED INVENTIONS

CHEMICAL ENG. INDUSTRY LIST NO. I

The following patents in the field of Electrical Engineering Industry are not being commercially worked in India admitted Patentees in the statements filed by them under section 146(2) of the patents Act, 1970, in respect of Calendar year 1999, generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of licence for the purpose.

| Patent No. | Date of Patent | Name & Address of Patentee | Title of the Invention |
|------------|----------------|---|---|
| 1 | 2 | 3 | 4 |
| 179987 | 21-05-90 | Alcan International Limited a Canadian company H3A, 3F2 Canada. | Apparatus for particle determination in liquid metals. |
| 176725 | 24-10-89 | Altech Industries (Proprietary) Ltd., of South Africa Transvaal province, Republic of South Africa. | Apparatus for generating consecutive output signals. |
| 172681 | 08-04-87 | Caoutchouc Manufacture ET Plastiques of 143 bis Yves Le Co2, 78000, France. | Process for the manufacture at a connection manufactured by such process. |
| 180344 | 09-04-91 | Clesim a French company of 10 Avenue 1, Enterprise, France. | Direct current electric furnace. |
| 174560 | 11-10-88 | Compagnie Industrielle De Tubes ET, Lamps of Issy, Les Moulineaux, France. | Lighting arrester device. |
| 179973 | 05-06-90 | Delot Process of Zone Industrielle La sauniere Saint Florentin, France. | A leak-tight vessel for continuous or non-continuous coating of objects with a liquid coating product and an apparatus in incorporating said leak-tight vessel. |
| 175519 | 12-04-89 | Duracell International Inc. of Berkshire Industrial Park Bethel, Connecticut-06801, USA. | Scaled electrochemical cell. |
| 174781 | 04-08-88 | Electrex Pty. Ltd. of the state of New South Wales, Australia. | Connector for affixing to a conduit. |
| 170224 | 20-08-86 | Emhart Glass Machinery Investments Inc. of the state of Delaware of United States of America. | An electric control system for a glassware forming machine. |
| 166431 | 03-04-86 | Energy Conversion Devices Inc. of 1675 West Maple Road Troy Michigan 48084, United States of America. | Improved method of manufacturing a semiconductor member on a substrate utilizing microwave energy. |
| 166970 | 26-09-86 | Do. | Power generating optical filter. |
| 170221 | 25-09-86 | Do. | Process for producing a lightweight array of thin film photovoltaic cells. |
| 171365 | 17-08-87 | Do. | A method for the manufacture of an improved electronic device by passivating short circuit defects in a electronics device. |
| 174172 | 13-05-88 | Do. | A solar cell. |
| 180754 | 13-02-91 | Do. | A method for the manufacture of a hydrogen storage negative electrode for use in a reversible electrochemical cell. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|--|
| 176447 | 18-12-89 | Gaz De France of 23 rue philibert Delorme, 75017, Paris FRANCE. | Device for detecting charges in the physical state of a thermoplastic material forming a weld between piping pieces. |
| 178293 | 21-11-90 | Do. | Connection component for element. |
| 166225 | 09-04-86 | The General Electric company Ltd., of 1 stunhop, Gate London, England. | Differential relay to protect an electrical feeder. |
| 177741 | 23-07-90 | Innovacia I Tieball Cooperatiuite S.coop. C,LTDA, of Av. De Mollet 1, 08130 Santa perpetuc De Mogoda Barcelona, Spain. | Adjustable action mechanism for volumetric dispensing pump. |
| 177994 | 21-08-90 | Kabalschlepp. GMBH of Federal Republic of Germany. | A telescopic covering for guideways of a shop machine. |
| 178686 | 30-07-90 | Do. | An energy feed carrier chain for power & supply lines. |
| 178691 | 13-08-90 | Do. | Guide for feeder chain for power & supply lines. |
| 180172 | 06-08-90 | Do. | Guide or feeder chain for power & supply lines. |
| 171351 | 13-07-87 | La-Telemacanique Electrique a French Co. | A device for preventing accidental change of one or more selected vest modes of manual control member. |
| 172195 | 13-07-87 | Do. | Snap acting switching device. |
| 172722 | 01-07-88 | Do. | Overload thermal relay. |
| 177252 | 13-03-89 | Larry Wayne Fullerton of Alabama 35810, United States of America. | A time domain radio transmission system. |
| 168416 | 13-04-87 | Mabuchi Motor Co., Ltd. of No. 430, Matsubidai, Matsudo-shi, chiba-ken, Japan. | Shallow cup shaped miniature motor. |
| 180330 | 07-03-91 | Mag Maschinen und Apparatefab FMBH of punigamer strasse, 127, 8055 Garaz, Austria. | Method & apparatus for producing enamelled wires using fusible resin. |
| 172548 | 19-04-88 | Motorola Inc. of Delaware, 1303 East Algonquin Road, United States of America. | An improved amplitude modulation stereophonic system. |
| 172652 | 27-04-88 | Do. | Linearized differential amplifier. |
| 174220 | 01-12-88 | Do. | A sigma delta converter for bandpass signals. |
| 174354 | 10-02-89 | Do. | Surface mount filter with integral transmission line connection. |
| 174928 | 02-05-89 | Do. | A portable radio telephone with control switch disabling. |
| 175452 | 09-03-89 | Do. | Frequency synthesizer for providing a synthesised output frequency with reduced spurious signals. |
| 175516 | 19-12-88 | Do. | Network of trunked communication system. |
| 175808 | 12-10-89 | Do. | Apparatus for automatic gain control (Agg) in a receiver. |
| 176173 | 08-08-89 | Do. | Device for automatically adjusting without human intervention the operating parameters of a mobile radio. |
| 176442 | 01-12-89 | Do. | Heterodyne stage of a radio or paper receiver. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|---|
| 176556 | 06-09-89 | Motorola Inc. of Delaware, 1303, East Alg. nquin Road, United States of America. | Satellite cellular telephone and data communication system for communicat- ing among plurality of users. |
| 176558 | 12-10-89 | Do. | Apparatus for conserving power in a communication receiver. |
| 176608 | 02-02-90 | Do. | Frequency control apparatus for a burst- mode radio communication system. |
| 176688 | 02-02-90 | Do. | Battery type defector for determining which type of battery is coupled to battery power cdequipment. |
| 176698 | 07-05-90 | Do. | Battery savei paging receiver. |
| 176703 | 05-12-89 | Do. | A portable radio telephone appara- tus. |
| 176879 | 19-04-88 | Do. | An improved amplitude modulation stereophonic receiver. |
| 177236 | 24-11-89 | Do. | Active signalling transmitter control system. |
| 177274 | 10-05-90 | Do. | Circuit for controlling oscillation cur- rent in a oscillator. |
| 177815 | 13-06-90 | Motorola Inc. of United States of America. | Phase detector. |
| 179728 | 20-02-90 | Do. | Communication system that provides for a 2-way wireless radio frequency (RF) communication unit access to at least two independent RF communi- cation system. |
| 180085 | 12-04-90 | Do. | Digital radio communication system. |
| 180400 | 14-05-91 | Do. | A device for transmitting an at least one original information signal. |
| 180575 | 19-11-91 | Do. | Communication system for a wide area site and a plurality of local sites. |
| 180635 | 12-04-90 | Do. | Paging terminal. |
| 180856 | 29-01-91 | Do. | A Radio frequency system for commu- nication of information as packets. |
| 180897 | 10-09-91 | Do. | Amplifier circuit providing reduced off channel frequency splatter. |
| 181004 | 23-12-91 | Do. | Frequency synthesizer devlce. |
| 182545 | 19-12-91 | Do. | Feed forward distortion minimization circuit for use in radio frequency (RF) amplifiers. |
| 165993 | 20-02-86 | N. V. Bokaert S.A. of Belgium. | Induction heating apparatus for heating elongate metal articles. |
| 180309 | 29-04-92 | Otis Elevator Company of Ten Farm springs Farmington connecticut 06032 United States of America. | Improved operational control system for a single speed elevator. |
| 180169 | 25-07-90 | Paul Wurth S.A. of Luxembourg. | Probe for determining the topographic- map of the loading surface of a shaft furnace. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|--|
| 180559 | 15-10-91 | Paul Wurtla S.A. of Luxembourg. | Device for injecting preheated air into a shaft furnace. |
| 172728 | 08-07-88 | Schneider Electric Industries S.A. of 40, Avenue Andre Morizet, Boulogne, France. | An electromagnet. |
| 174569 | 14-12-88 | Do. | Athermally protected electrical switching apparatus. |
| 174606 | 23-03-89 | Do. | Connection terminal for an Electric apparatus. |
| 175607 | 30-03-89 | Do. | Electric contact maker apparatus. |
| 177245 | 30-01-90 | Do. | A switch contractor apparatus. |
| 167003 | 24-03-86 | Sohio Commercial Development CO., and Energy conversion Device, Inc, USA. | Apparatus for the continuous vapor deposition of semiconductor ally material. |
| 177053 | 24-05-90 | Sony Corporation of Japan. | A hand-held video camera assembly. |
| 178840 | 03-12-90 | Do. | Magnetic tape cassette for recording and/or reproducing a digital signal. |
| 180875 | 18-06-91 | Do. | Disc recording apparatus. |
| 181005 | 24-12-99 | Sorelec a French Company of Le Motte Saint Euverte saint Jean de France. | Solar lamp stand. |
| 178274 | 25-06-92 | Sun-Power Inc. of USA Corporation of USA. | Linear generator or motor with integral magnetic spring. |
| 172742 | 18-12-87 | The Standard Oil Company of 200 Public square, Cleveland Ohio, USA. | A method for the manufacture of Ohmic contacts. |
| 189556 | 16-07-91 | Telefonica De Espana SA, Gran Via-28, 28013 Madrid, Spain. | A telecommunications packet switching system. |
| 174866 | 31-03-99 | Steinert Electro magnetbau GMBH of widdedorfer strasse 329-331, 5000 Koln, West Germany. | Magnetic separator for separating particles of lesser conductivity in a mixture of said particles. |
| 176702 | 09-11-89 | Toretrak (Development) Ltd. of Id. Newington causeway London, SE 16 BU, England. | Device for controlling a roller in a continuously variable ratio-transmission (eyt) of the toroidal race rolling traction type. |
| 166735 | 24-04-86 | Vacuum Interrupters Ltd., of 68 Ballards Lane Finchley London, N32BU, England. | A contact for an electric switch. |
| 166317 | 06-10-86 | Videocolor, of 7, Boulevard Roma-in, Rolland, 92128, Montrouge, France. | a device for correcting the deflection effect due to a variation of the focusing voltage in trichromatic cathode ray tube with in line cathodes. |
| 166440 | 01-10-86 | Do. | An electron gun for a cathode ray tube & method of manufacturing a heating filament of said electron gun. |
| 166689 | 01-10-86 | Do. | Device for automatic simultaneous measurement of the respective distances between cathode and the second grid of a trichromatic cathodes tube gun. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|---|
| 176165 | 01-12-88 | Whirlpool Corporation State of Delaware, USA. | Automatic laundry washer. |
| 176681 | 19-12-89 | Do. | An automatic washer. |
| 177743 | 30-07-90 | Do. | A control device for an automatic washing machine with a reversing PSC motor. |
| 180171 | 30-07-91 | Do. | An apparatus for monitoring the amount of diether in a permanent split capacitor motor. |

COMMERCIAL WORKING OF PATENTED INVENTIONS CHEMICAL ENG. INDUSTRY LIST No. 1

The following patents in the field of Mechanical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146 (2) of the patents Act, 1970, in respect of Calendar Year 1999, generally on account of want of request for licences to work the patented invention persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

| Patent No. | Date of Patent | Name & Address of Patentee | Title of the Invention. |
|------------|----------------|--|--|
| 1 | 2 | 3 | 4 |
| 180663 | 22-4-91 | A.B. Skf, a swedish Company of S 41550 Gotebare, Sweden. | A sealed spherical rolling bearing. |
| 180057 | 27-3-90 | Alain Hammami of 22, rue caumartin paris 9e, France. | Siggle use hypodermic syringes. |
| 178688 | 15-10-90 | Aktiebolaget Bofors, of Sweden. | Subwarhead. |
| 172014 | 05-12-86 | Alcan International Ltd. Canada. | A method for press forming aluminium components into desired shapes for use in auto motive industry. |
| 176689 | 02-02-90 | Alexander Isai Kalinna of 105 Glen Garry way Hillsborough California 94016, United States of America. | Apparatus for implementing a thermodynamic cycle. |
| 172340 | 18-03-88 | Astra Tech Aktiebolag, a swedish body of Sweden. | Automatic two-chamber injector. |
| 179727 | 29-01-90 | AVL Gesellschaft Fur varbrbngnga kraftmaschinen and messtechnik GmbH and Prof. Dr. H.C. Hens list of kleiststrasse, Austria. | An sur-cooled internal combustion engine. |
| 170455 | 18-2-87 | BCL PACKAGING Ltd. state of victoria, Australia. | An apparatus for aseptically filling and storing degradable liquid contents. |
| 174820 | 21-04-89 | Beda Oxygentechnik Armaturen GMBH of West Germany. | Compact lance for introduction of oxygen during a combustion process. |
| 175143 | 28-04-89 | Bade Oxygentechnik Armaturen GMBH of West Germany. | A lance holder metal refining oxygen lance. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|---|
| 174479 | 16-01-89 | Biolandes Technologies of Lal. San, F-40420, Labrit, France. | A process for separating by solvent extracting a product (solute) such or essential oils contained in a plant material and an apparatus for carrying out the process. |
| 190315 | 07-12-90 | Bohler Gesellschaft M.B.H. of 25, A-8605, Kapfenberg, Austria. | A process for the preparation of a novel cold worked steel with high crushing strength. |
| 168613 | 16-02-87 | BP Chemicals Limited of England. | Apparatus for detecting anomalies in a fluidised bed contained in an inclosure. |
| 175177 | 15-05-89 | Carol Annmackay and Helen Lelekurtz of United States of America. | Wick lubricator for applying lubricant to a rotatable journal. |
| 179797 | 23-08-90 | Carol Ann Mackay & Helen Lou Kurtz of United States of America. | Interface device isolating a gear case from an armature bearing collar. |
| 177195 | 29-08-89 | Cogifer (Société Générale d'installations ferroviaires), France. | A crossing frog with a moving point & a process for producing such a crossing frog. Apparatus for removing a fiber. |
| 173935 | 15-07-87 | Coventry University of Priory street, Coventry England & Dan Merritt of 139 Baginton Road Coventry, England. | Internal combustion engine. |
| 178328 | 06-12-90 | Do. | Internal combustion engine. |
| 175203 | 05-05-89 | Dan Merritt of priory street, coventry CV1 5HB, England. | Internal combustion engine. |
| 169588 | 22-09-87 | Deknatel Technology corporation of 600 Airport Road, Massachusetts 02722, 2980. USA. | Apparatus for draining fluids. |
| 176344 | 29-09-89 | Do. | Drainage device for removing fluids from body cavities of patients. |
| 180051 | 20-03-91 | Do. | A fluid collection reservoir. |
| 176890 | 25-05-90 | Delot Process of zone Industrielle La saunière 89600 Saint florentin, France. | Electro-magnetic valve for controlling the flow of a metal or metal alloy in liquid phase in a pipe. |
| 171348 | 19-01-88 | Doris Engineering of 58 A rue de Dessour des Berges, Paris, France. | Non-rigid marine platform for use in deep water applications. |
| 180063 | 12-03-90 | Edouard Malbec a French citizen of logis de chalonne, France. | Cartridge for a peristaltic pump and peristaltic pump fitted with said cartridge. |
| 166723 | 06-05-86 | Emhart Glass Machinery Investment INC. King street, Wilmingslon, Delaware, 19801, USA. | Drive system for a glass container production line. |
| 167006 | 12-05-86 | Do. | A job distributor for conveying in a preselected sequence successively formed group of glass jobs to fixed through groups. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|--|
| 174825 | 23-03-89 | Energy conversion Devices Inc. of America of 1675 West Maple Road, United States of America. | Large are microwave plasma apparatus for sustaining a substantially uniform plasma therein. |
| 166408 | 15-09-89 | Do. | Apparatus for reducing the size of metal hydride hydrogen storage alloys. |
| 178611 | 13-05-88 | Do. | A method of fabricating microcrystalline semiconduction alloy material. |
| 176023 | 26-07-89 | Etablissements vapo of R.N. 84, F-01430ST Martin-du, Fresne, France. | Screw fixing device for a concrete construction element. |
| 177273 | 04-05-90 | Putai Umbrella Works Ltd. of No. 16 ehen tai road Taiwan 24801. | An automatic umbrella. |
| 179233 | 19-08-93 | Gazde France of 23 Rue philibert delarma, 75017, Paris, France. | Method & apparatus for making steel. |
| 167034 | 21-07-86 | General signal corporation of High Rodge Park, Connecticut, 06904, USA. | Gravimetric feeder apparatus for feeding particulate of a feed rate in terms of weigh-per unit time. |
| 174388 | 22-08-89 | Geoffrey Raymond richter, Australia. | Collapsible container for the transportation of cargo and bulk material. |
| 174551 | 07-01-88 | Gillette company, USA. | Safety razors. |
| 174788 | 01-11-88 | Do. | A razor assembly. |
| 175118 | 14-04-88 | Do. | Razor blade assembly for use in wet shaving. |
| 177196 | 08-09-89 | The Gillette company of podential Tower building, Boston, Mussachusetts 02199 United states of America. | Method & apparatus for providing sharpened cutting edger on blade blanks to produce razor blades. |
| 177714 | 23-01-87 | Do. | A method for making a cutting edge such as cutting edge of a razor blade. |
| 180363 | 16-01-91 | Do. | A razor blade member. |
| 180727 | 08-11-90 | Do. | Safety razor. |
| 180906 | 22-03-91 | Do. | Safety razor & blade units therefor. |
| 172137 | 22-12-87 | The Good year tire & Rubber Company of America Akron, Ohio 44316-0001, USA. | Heavy duty pneumatic tires. |
| 172790 | 05-07-88 | Do. | Pneumatic tire for heavy duty use. |
| 176863 | 25-02-87 | Do. | A pneumatic radial tire. |
| 177247 | 05-02-90 | Do. | Method of manufacturing retreaded tire without tread distortion & a tire retreading & apparatus. |
| 180895 | 15-07-91 | Do. | Pneumatic tyre. |
| 174639 | 16-10-89 | Gregory Gould of 30, 01-airmount Avenue, State of New York, 10594, USA | Apparatus for accurately and reliably measuring one or more characteristics of a bulk material. |

| 1 | 2 | 3 | 4 |
|--------|----------|---|--|
| 167912 | 04-11-85 | Guy Gaudfrin of Alleedu Bec de canard, Golf 78860 saint-Nom-la-Breteche, France. | An improved conveyor belt filter having a friction reducing buffer means. |
| 174558 | 04-10-88 | Do. | Improvements in press-filters incorporating endless filtering webs. |
| 176931 | 07-10-86 | Do. | A filtering apparatus. |
| 176123 | 07-10-86 | Do. | A filter for liquids lader with solid particles. |
| 172552 | 26-03-87 | Habsit A.G. a Swiss company of Romenach, Switzerland. | A Driving belt having a textile supporting element. |
| 174926 | 25-04-89 | Hans Zumstein of Rigtwiesstrasse 19, 8819, Horgen, Switzerland. | Transportable device for transferring drive from wheels of a motor vehicle to an external machine or apparatus. |
| 168875 | 08-05-87 | Harold J. Kosasky of 25, Boylston street, chestnut, Hill, Massachusetts, USA. | Ovulation testing apparatus. |
| 166228 | 02-05-86 | Heinz Schaaf Nahrungsmittel Extrusionstechnik, of quellenweg 14+199 Bad cambergoberselters, West Germany. | Apparatus for extruding food stuffs. |
| 177920 | 01-07-88 | Heinz Kaiser A.G. of glattalstrasse 837, CH-8153 Rumlang, Switzerland. | Boring attachment with on adjustable boring width. |
| 167683 | 12-02-87 | Interlego A.G. of neuhaufstrasse 21, CH-6340 Bazar, Switzerland. | Toy truck for toy vehicles. |
| 167958 | 14-07-87 | Do. | Toy cog railway. |
| 174632 | 24-02-89 | Do. | A toy building element. |
| 177696 | 29-11-88 | Do. | A toy vehicle with wheels. |
| 177177 | 06-10-88 | Jean Pierre Denis a French citizen of France. | Projectile intended to be fired by a firearm. |
| 172974 | 11-08-87 | Joh Enschede En Zonen grafische inrichting of Klokhuisplein 5, 2011, H.K. Haarlem, the Netherlands. | Protectively coated printed paper which may be used E. +as paper currency documents and other kind of printed matter that are subject to intensive circulation and frequent use. |
| 176652 | 05-10-89 | Kabelschlapp. GMBH of federal republic of Germany. | Fluid filter and a method for producing the fluid filter. |
| 176721 | 31-08-89 | Kennametal Inc. of P.O. Box 231, Latrobe, pennsylvania 15659, United states of America. | Automatic clamping unit for receiving and holding a tool holder. |
| 177719 | 27-02-90 | Do. | Cutting insert. |
| 170967 | 30-06-87 | La-Telemecanique Electrique of 33, bis, Avenue da-marechal toffrs 92000, Nanterre France. | A device preferably for use in thermal tripping apparatus. |
| 172629 | 21-06-88 | Do. | A device rendering contractors electrically & mechanically in-operative. |
| 177264 | 18 04-90 | Leggett & plztt Incorporated of United States of America. | Spring interior for a bedding product. |
| 174814 | 01-06-89 | Iowan (management) PTY, Limited of the state of south Australia of Australia. | A centrifugal jig. |
| 179522 | 26-03-90 | Miner Enterprises of 1200 east state street, Geneva state of Illinois 60134, USA. | Friction elastomer draft gaur device. |
| 172027 | 08-10-87 | Minerals Technologis Inc of 235, East 42nd street, New York USA. | An injection nozzle for use in metallurgical processes such as steel making process. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|--|
| 178936 | 15-05-90 | Mitsuba Corporation of 2681 Hirosawa-cho, 1-chome kiryu shi Gumma-ken, Japan. | An apparatus for manufacturing a long element having a shapped contiguration at an end of said long element. |
| 178937 | 15-05-90 | Do. | Cold-Fernal shaft method and apparatus for manufacturing the same. |
| 174478 | 01-12-88 | Melcorola Inc. of 1303, East, Algonquin ois, 60196, USA. | A codebook vector generating device for code book vector for a vector for quanti-zer. |
| 177447 | 24-12-90 | Munishwar Kumar nationality Industr, C/o H. No. 6206, Block 1, Devnagar, Delhi-5. | Rail belt conveyor. |
| 166412 | 20-02-86 | N.V. Bekaert S.A. of Belgium. | A fluidized bed apparatus for heat treating qustelnifized steel wires. |
| 168533 | 04-06-87 | Do. | A method of producing steel reinforcing element in the formal steel wire. |
| 170389 | 09-04-87 | Do. | Process for producing a steel cord. |
| 176155 | 11-08-89 | Do. | A process for manufacturing steel wire having improved adhesion capacity to elasromers. |
| 180855 | 31-12-91 | Noeil service and maschinentechnik GMBH of Langenhagen, Germany. | Rotor for impact or hammer mills and a process for the fabrication thereof. |
| 172757 | 21-04-88 | Norsk Hydro A.S. of Bygdey Alle Z, 0257 Oslo 2, Norway. | Flexible intermediate bulk container. |
| 180061 | 09-03-90 | Do. | A flexible intermediate bulk container. |
| 174774 | 10-03-89 | Orbital Sciences Corpn. of 12500, fair, lakes, circle, fairfax virginia-22033, USA. | Rocket booster vehicle. |
| 170826 | 09-06-87 | Paul Wurth S.A. of 32 rued Alsace, Luxembourg Grand-Duehy of Luxembourg. | Vassel incorporating a closing a device particularly for use as a storage happer of a shaft furnace. |
| 174178 | 21-08-88 | Do. | Blast pipe holder for injecting preheated air in-to a shaft furnace. |
| 174214 | 21-09-88 | Do. | Device for injecting preheated air into a shaft furnace. |
| 174233 | 26-08-86 | Paul wurth S.A. of 32 rued Alsace, Luxembourg, Grand-Dushy of Luxembourg. | Automatic lance changeover device. |
| 174932 | 23-06-89 | Do. | An apparatus for charging a shaft furnace. |
| 177462 | 11-12-90 | Do. | Apparatus for installing or removing shaft furnace tnyeres or tymys. |
| 181429 | 05-03-91 | Do. | Device for injecting preheated air into a shaft furnace. |
| 175841 | 08-07-88 | Pipe Liners Inc. of Louisiana of 3421 N-causeway boulevard, metairie Louisiana, USA. | A method and apparatus for producing a deformed pipe liner of tubular crosssec-tion. |
| 173621 | 10-11-88 | Portals Ltd. of overton, basingstoke, Hampshire RG-25, 3JG, England. | Security paper for security documents and a process for the manufacture of the same. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|--|
| 178839 | 30-11-90 | Rambus Inc. of the state of california, USA. | An apparatus for storing & retrieving data. |
| 176084 | 21-07-88 | Rem chemicals Inc. of 325 west Queen street, Soutnington, connecticut 06489, USA. | A process for the refinement of metal surface of objects. |
| 181430 | 13-03-91 | S.A. Wow Company of 18, rue de cognolet B-5000 Namur, Belgium. | Device intended to create a motion in a liquid in particular at the surface thereof. |
| 174246 | 06-02-89 | Schenck Auto Service Gerate GMBH of Landwehrstrasse 63, postfach, Darmstadt West Germany. | Support of a mounting for an object & a process for its manufacture. |
| 177052 | 23-05-90 | Schneider Electric Industries S.A. of France. | Quick closure Box. |
| 172212 | 11-11-87 | Schwihag Gesellschaft Fur Eisenbahno-berbau MBH of CH-8274 Tagerwilen, Switzerland. | An attachment device for securing a rail to a railroad tie. |
| 180180 | 31 08-90 | Siemens-Albis AF. of Albisrieder strasse 245, CH-8047, Zurich, Switzerland. | A subscriber station for a message trans- mission installation. |
| 174628 | 28-02-89 | Sindermetallwerk Krebsoge GMBH, a of Krebsoge 10, D-5608 Radevormwald, West Germany. | A method for producing a powder forged article such as a connecting roal. |
| 179784 | 03-06-91 | Smiths Industries Medical system, Inc now known as simo portex Inc United States of America. | A cap & syringe assembly. |
| 164849 | 17-12-85 | Space systems Loral Inc of 3825 Fabian way palo Alto California, United States of America. | A system for reducing spacecraft instru- ment p-oining errors caused by instrument motion induced spacecraft motion. |
| 166093 | 05-02-86 | Societe Nationale Des prudres Et, Explosifs, France. | Apparatus for the manufacture of one or more blocks at propellant by casting. |
| 164758 | 11-07-85 | Specialised Polyurethane application pty, Ltd. and Dyno wesfarmers Ltd. of Australia. | Borehole plug for a borehole for plucing explosives therein. |
| 172750 | 18-12-87 | The Standard Oil Company of Ohio USA. | A photovoltaic device. |
| 177477 | 23-06-92 | Sun p-ower Inc. U.S. Corporation, USA. | An improved fluid bearing apparatus for a reciprocating body. |
| 180572 | 13-11-91 | The Torrington company of the state of Delaware Torrington, connecticut, USA. | A plastics wear element such as a bearing cage composed of a plastic resin and a method for producing said plastics wear element. |
| 180302 | 21-01-91 | Torotrak Development Ltd of 101 Newington causeway London se 1 6 Bu, England. | A rotatable disc for use as input or output disc of a variator for a transmission of the toroidal race rolling traction type and a variater incorporating said rotatable disc. |
| 175175 | 03-05-89 | Toyo Engineering Corporation of 2-5- Kasumigasaki-3 chome chiyodaku-Tokyo, Japan. | A process for manufacturing of a catalys for use in steam reforming reaction. |
| 175125 | 17-04-89 | V-Pile Technology luxembourg S.A. of Fiduciaire muller, Guilagmekrill, Luxembourg. | Pile driving apparatus. |

| 1 | 2 | 3 | 4 |
|--------|----------|--|---|
| 179985 | 18-05-90 | Volta Carmiel-A, Factory of plastic Materials Ltd of simatat Hachormesh 8, Savion, Israel. | Endless drive belt method & device for producing said endless drive Belt. |
| 170466 | 30-07-87 | Whirlpool Corporation, State of America. | A method of treating a soiled textile wash load to restore to its former condition. |
| 177936 | 21-12-90 | Do. | An apparatus for laundering a soiled textile wash load to restore it to its former condition. |
| 177037 | 21-12-90 | Do. | An apparatus for rinsing & textile wash load. |
| 178441 | 26-12-90 | Do. | An automatic washing machine. |
| 178444 | 17-12-87 | Warner-Lambert Company of 201 Tabor road, morris plains, New Jersey of America. | Razor cap with a lubricating Oil strip and method for manufacturing the same. |
| 178452 | 17-12-87 | Do. | Razor cap with a lubricating oil strip. |
| 180576 | 18-07-88 | Whirlpool Corporation, State of Delaware, USA. | A single shaft agitator and spin drive rotational delay mechanism for an automatic washer. |
| 181003 | 23-12-91 | Do. | An automatic washer. |

RENEWAL FEES PAID

176895 178538 177824 177136 177863 171819 183040 181401
 183670 169428 172456 172485 172486 173519 181837 181838
 182113 181877 182969 180995 181292 180994 182961 182243
 177139 180959 180982 171897 168813 173871 174134 174512
 176386 176384 176932 176921 176922 177170 177828 178071
 179519 183574 182246 183803 184039 173516 181445 181468
 182562 182866 183602 183794 183863 175967 176226 177573
 178223 168269 181173 183737 183764 177472 175968 181346
 181522 173546 178826 178272 168550 177217 183232 179438
 178963 178975 181809 172853 180123 181098 169981 177088
 178362 178528 178355 181928 183763 181514 183735 181643
 181711 182852 177082 185922 171547 171548 171545 171546
 172243 178752 182240 176571 177001 177432 181175 181533
 181534 181676 181916 182038 182347 182648 183323 183354
 183441 183732 176210 178647 183673 183733 182255 183407
 177383 182417 181461 178270 168964 182659 180885 168938
 183398 182537 173827 178706 174197 169892 181585 178716
 183641 179750 176622 178264 175954 176195 182291 177348
 178421 178369 180710 183244 181741 181442 180379 182475
 183908 182338 182319 172718 183204 176322 176355 177328
 178106 178418 181900 177389 173307 182460 178767 168806
 171806 172461 172514 178602 178718 177378 172515 175878
 176314 183134 180886 179238 181284 174095 175687 179128
 182237 183205 183766 183767 183814 174459 176500 182991
 178546 169458 176580 177324 171057 171232 173667 169028
 178955 183237 184030 183705 180256 183970 180780 171424
 174991 176579 178302 182925 183769 183791 183798 183870

177027 183397 181862 182411 181055 181652 176216 171445
 171209 182212 183736 177482 184025 183865 182120 176965
 174424 177901 183688 183575 178510 184031 180037 177973
 182738 182399 182816 182817 183163 180989 183044 183452
 181611 184056 176927 183454 181403 183160 183459 183460
 181728 183164 180996 180997 182737 182014 178726 178573
 174423 170493 171069 174513 176926 176381 169423 169914
 172846 182740 170243 173884 175381 175386 176964 183451
 183712 184051 184038 184040 181457

PATENT SEALED ON 09-03-2001

184421 184423*D 184424*D 184426*D 184427*D 184428*D
 184429*D 184431* 184432 184434 184435*F 184436*D
 184437*D 184438*D 184439*D 184440*D 184442 184443
 184444 184446*D 184447 184448* 184450 184451*
 184452* 184453* 184454 184455 184456 184459* 184460
 184462* 184464* 184465* 184467* 184468 184469* 184470
 184472 184473 184474 184475 184477 184479 184483*
 184484 184485

CAL—07, DFL—19, MUM—NIL, CHEN—22

*Patent shall be deemed to be endorsed with words
 LICENCE OF RIGHT Under Section 87 of the Patents Act,
 1970 from the date of expiration of three years from the date
 of sealing.

D—Drug Patents

F—Food Patents

REGISTRATION OF DESIGNS

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in section 50 of the Design Act 1911.

The date shown in the each entries is the date registration included in the entries :

- Class 1. No. 182870. Force Manner Co. Ltd. of Hong Kong of 11/F., Valiant Commercial Building, 22-24, Prat Avenue, Tsim Sha Tsui, Knowloon, Hong Kong. "COOKING POT". 13th July 2000.
- Class 1. No. 183114. Fiat Auto S.P.A. of Corso Giovanni Agnelli 200, I-10135, Torino, an Italian Joint Stock Company. "REAR TRUNK LID OF MOTOR CAR". 2nd August 2000.
- Class 1. No. 183127. Roto Pumps Limited, 308, Osian Building 12 Nehru Place, New Delhi-110019, India, and registered office at C-6, Panki Industrial Estate, Kanpur-208022, U.P. India. "PUMP WITH MOTOR". 3rd August 2000.
- Class 1. No. 183128. Roto Pumps Limited of 308, Osian Building, 12 Nehru Place, New Delhi-110019, and registered Office at C-6, Panki Industrial Estate, Kanpur-208022, U.P. India. "PUMP". 3rd August 2000.
- Class 1. No. 183124. Whirlpool of India Limited, an Indian Company. 7th Floor Atma Ram House, I Tolstoy Marg, New Delhi-110001, "EMBOSSSED DOOR FOR REFRIGERATOR". 3rd August 2000.
- Class 1. No. 183213. M/s. Avcon Metal Industries, of Jagat Satguru Industrial Estate No. 2, Off Aarey Road, Vishweshwar Nagar, Goregaon (East), Mumbai-400063, State of Maharashtra, India "CASSE-ROLE". 16th August 2000.
- Class 1. No. 183215. M/s. Avcon Metal Industries, of Jagat Satguru Industrial Estate, No. 2, off Aarey Road, Vishweshwar Nagar, Goregaon (East), Mumbai-400063, State of Maharashtra, India. "TIFFIN CARRIER". 16th August 2000.
- Class 1. No. 183266. Gandhimathi Appliance Limited of No. 143, Pudupakkam Village, Vandalur Kelambakkam Road, Kelambakkam Post-603103, Kanchipuram District, Tamil Nadu, India, "SMALL JAR OF THE MIXER/GRINDER". 22nd August 2000.
- Class 1. No. 183288. One Lus International Co. Ltd. of No 333 Kang-Shan North St. Chuan Jenn. Dist. Kaohsiung, Taiwan R.O.C. "GEAR SHIFT LOCK". 23rd August 2000.
- Class 1. No. 183293. Bajaj Auto Ltd. an Indian Company of Akurdi, Pune-411035, Maharashtra, India. "2-WHEELER". 25th August 2000.

H. D. THAKUR

Controller General of
Patents Designs & Trade Marks

प्रबन्धक, भारत सरकार मद्रासालय, फरीदाबाद द्वारा मद्रित

एवं प्रकाशन नियंत्रक, दिल्ली द्वारा प्रकाशित, 2001

PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, FARIDABAD
AND PUBLISHED BY THE CONTROLLER OF PUBLICATIONS, DELHI, 2001